Fun With Numbers

2
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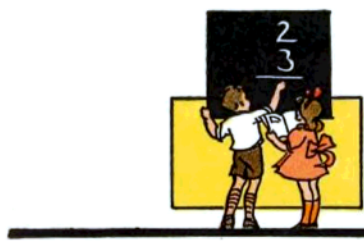
Fun With Numbers

By
Joseph C. Brown
Helen Cook Mirick
J. Freeman Guy
And
Albert C. Eldredge



Illustrations By
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Preface

This book introduces, informally, the meanings and uses of numbers as they occur in the work and play of young children, and it lays a proper foundation for the arithmetic that is to follow.

Spontaneous interest in real life situations and a normal child's delight in working with numbers are among the chief motivating factors in stimulating and fostering good attitudes and habits in primary arithmetic. These factors are fully utilized in this book.

Some of the significant features of the book are:

1. An interesting and thoroughly sound beginning course, shaped by the results of recent scientific research and by worthwhile trends in the teaching of arithmetic.

2. Unusual emphasis upon activities and experiences of children.

3. Excepting the preface, the table of contents, and the index, a book written in language so simple that second grade children will find every word of it easy to read and understand.

4. Only real problems of children — interesting, challenging and carefully graded. (The natural approach to problem solving will be welcomed by teachers who are familiar with the recent studies in this field.)

5. Introduction of new ideas in the most desirable sequence and through normal situations in which the need for the ideas is apparent to the child.

6. Careful presentations, in number stories, of new topics to assure understanding, followed by number stories and abstract drills planned to fix and maintain the ideas and skills.

7. Addition and subtraction introduced separately. (The

psychology of learning and the reported experiences of scores of efficient classroom teachers convince the authors that the meanings of these processes are understood more readily by the child when introduced in that way.)

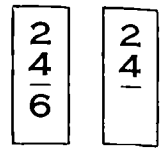
8. A very gradual introduction of the addition and subtraction facts. (In the applications following the introduction of facts, drill is distributed according to the relative difficulty of the facts and the repetition necessary for maintaining skills.)

9. Measurements taught as the child needs them in purposeful activities, and provision for intelligent use of the measurements later in the book.

10. Artistic illustrations that suggest child activities, that help the pupil to visualize the number stories, and that add to the genuine charm of the book.

Study and Flash Cards

To provide for individual needs in drill and testing, a card, as illustrated, is recommended for each fact. The face side of the card is for study; then, by arranging the cards face down and by showing the child the back of a card, the teacher or another pupil may test him. If the child makes a mistake he should be shown the answer at once, but the card should be put on the "missed" pile to be studied more intensely later.



(face) (back)

The Authors.

Acknowledgments

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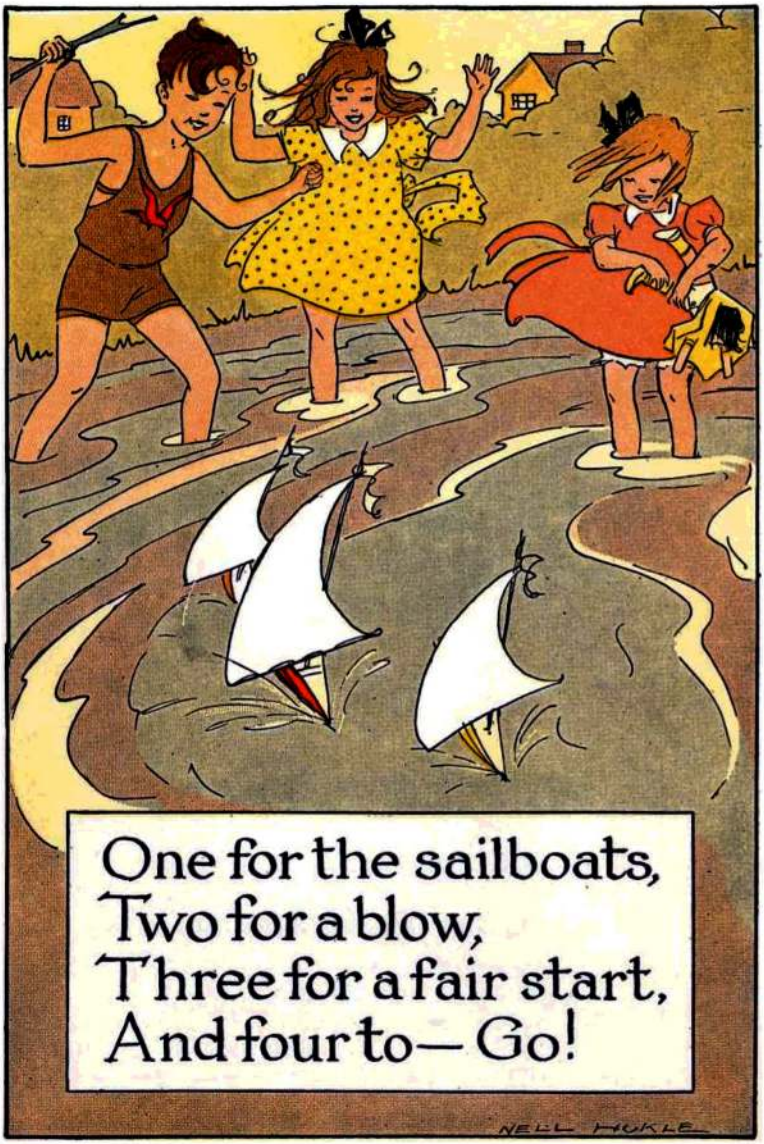
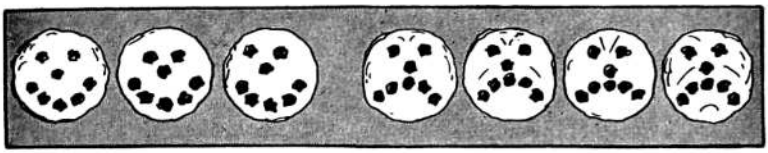
Fun With Numbers


One for the sailboats,
Two for a blow,
Three for a fair start,
And four to— Go!
NELL HUKLE

1. How many chickens do you see in this picture?
2. How many little chickens are there?
3. How many big chickens are there?
4. How many black chickens?
5. Are there more black chickens or white chickens? How many more?
6. How many girls are feeding the chickens?
7. How many children do you see?
8. How many boys are there?
9. How many girls are there?



1. How many cookies have happy faces?
2. How many cookies have sad faces?
3. There are more_____cookie faces.
4. Count all the cookie faces.
5. Draw 2 cookies. Draw 5 cookies.

Mary's Sara's John's

6. How many pennies has John?
7. How many pennies has Sara?
8. How many pennies has Mary?
9. Who has more pennies, John or Mary?
10. Who has the most pennies, Mary, Sara, or John?

1 2 3 4 5

One, two, three, four, five,
I caught a hare alive.

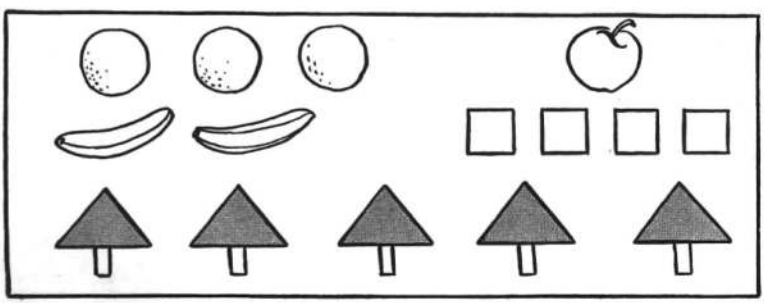
1, 2, 3, 4, and 5 are figures.

They mean the same as the words one, two, three, four, and five.

Can you make good figures like these?
The dot shows where to begin the figure.

1 2 3 4 5

Draw the pictures in each group below. Under each group write the figure that shows how many are in that group.



1. Jack carries the flag. He is the first in line.

2. Billy is the fifth in line. He is playing_____.

3. Because Tom has a drum he is_____ in line.

4. Helen is marching just before Billy. She is_____ in line.

5. Joan is marching just behind Tom. She is_____ in line.

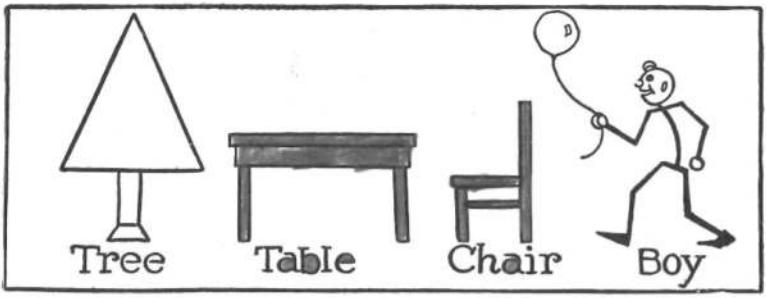
6. Who is fourth in line?

7. Who is the last one in line?

1. Which plant has most flowers?
2. Which plant has fewest flowers?
3. How many flowers are on that plant?
4. Which plant has more red flowers?

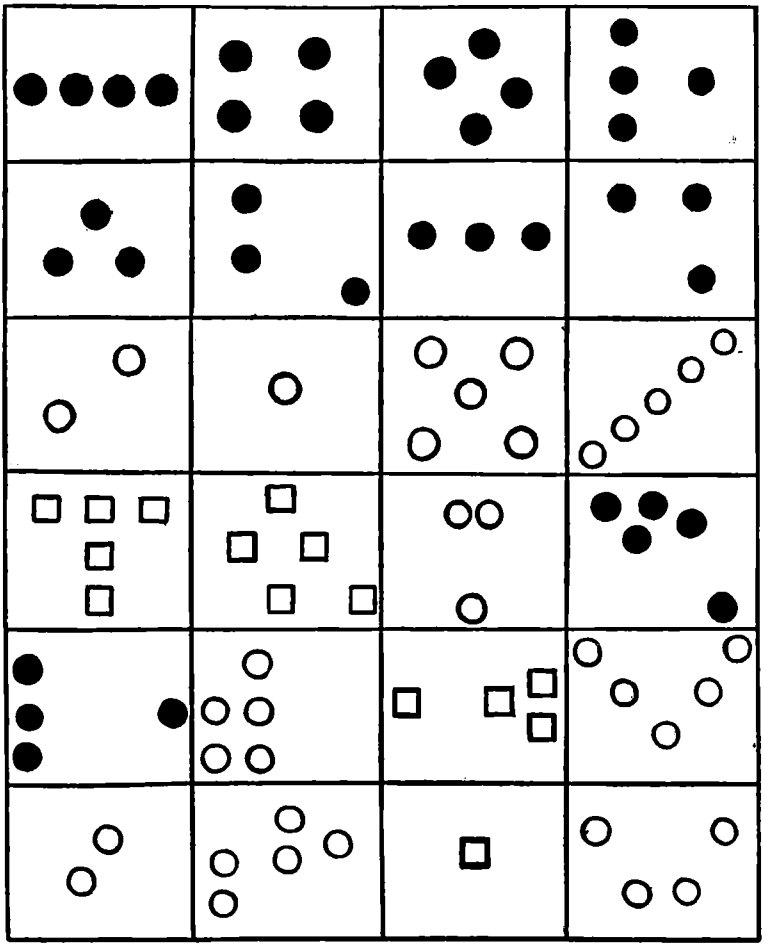
The first plant has white flowers.

5. Which plant has fewer flowers than the first?
6. What color are the flowers on the fourth plant? On the third plant?
7. Which plants have the same number of flowers?
8. How many flowers has the last plant?
9. Which is the largest plant?
10. Which of the plants is smallest?



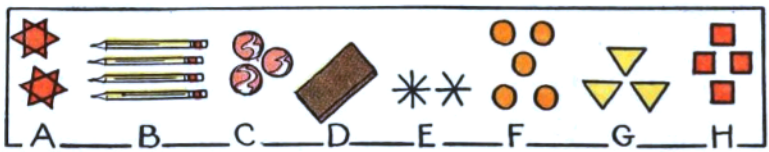
1. Draw four trees and put a line under them. Write the figure 4 below the line.
2. Draw two tables. Write the figure two.
3. There were 5 boys at Allen's party. Draw them.
4. Draw chairs for the five boys.
5. Draw two boys. Have one carry more balloons than the other.
6. Draw four chairs.
7. Draw the same number of boys.
8. Draw a table with 2 chairs.
9. Draw a group of three trees and another group of four trees.
10. Draw 2 boys, 2 chairs, and a table.

How Many Things in Each Box?



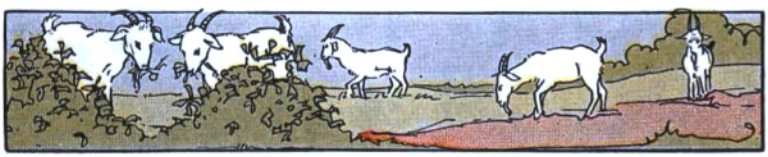
A Quick Way to Count

Tell quickly, without counting, how many things are in each of these groups:

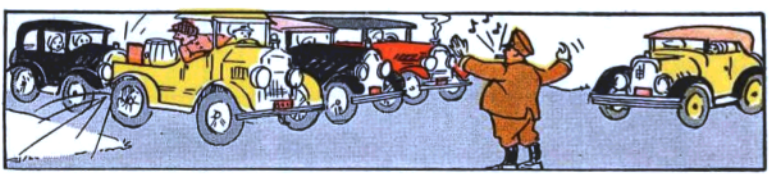


Count the things below quickly.

Begin with 2. Think, 2, 3, 4 kittens.



Think, three, ____, ____ goats.



Think four, ____ cars.

Number Stories

Do you know about The Three Bears?

There were a father bear and a mother bear. There were 2 big bears.

Then there was a little bear.

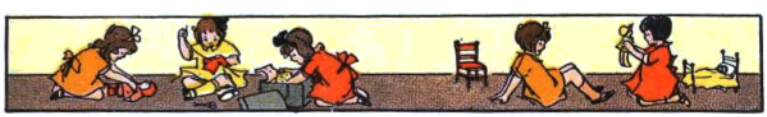
Two bears and one bear are ____ bears,

2 bears and 1 bear are ____ bears.

1 bear and 2 bears are ____ bears.

1 chair and 2 chairs are ____ chairs.

2 boys and 2 boys are ____ boys.



3 girls and 2 girls are ____ girls.

2 girls and 3 girls are ____ girls.

When John and Winnie put their money together to buy a candy bar, they added 3 cents and 2 cents to get 5 cents.

We write the figures this way: $\begin{matrix} 3 \\ 2 \\ \hline 5 \end{matrix}$

When we add, we get the sum.

Read the numbers and their sum in each example below.

Copy the examples with the sums:

$\begin{matrix} 1 \\ 2 \\ \hline 3 \end{matrix}$	$\begin{matrix} 1 \\ 1 \\ \hline 2 \end{matrix}$	$\begin{matrix} 2 \\ 1 \\ \hline 3 \end{matrix}$	$\begin{matrix} 2 \\ 2 \\ \hline 4 \end{matrix}$	$\begin{matrix} 3 \\ 1 \\ \hline 4 \end{matrix}$	$\begin{matrix} 2 \\ 3 \\ \hline 5 \end{matrix}$	$\begin{matrix} 1 \\ 3 \\ \hline 4 \end{matrix}$	$\begin{matrix} 3 \\ 2 \\ \hline 5 \end{matrix}$

Number Stories

1. Amy had 3 pencils in her pencil box. This morning she bought 1 new pencil. When she put it into her pencil box, how many pencils did she have in the box?

2. There are 2 boys and 2 girls in John's family. He told the teacher there are ____ children in his family.

3. Jane had 2 pennies. Her father gave her 3 more pennies. She then had _____ pennies altogether.

A Short Way to Write "And" and "Are"

2 dolls and 1 doll are 3 dolls.

2 dolls + 1 doll = ____ dolls.

$$2 + 1 = ____$$

The plus sign, +, means "and" or "add."

The equal sign, =, means "are" or "equal."

1 + 1 =	1 + 2 =	1 + 3 =
3 + 2 =	3 + 1 =	2 + 1 =

The Duck Family

Mr. Duck and Mrs. Duck
And the little ducklings three
Make two and three are five ducks
In a happy family.

Said Mr. Duck to Mrs. Duck,
"The water's fine, I see.
We'll go swimming, you and I,
And our ducklings, one, two, three."

1. Nancy is having a birthday party. She asked 2 girls and 3 boys. How many children did she ask?

2. Nancy has 4 red paper caps and 1 yellow cap. Is that enough for all of her company?

3. Two boys and one boy are ___ boys.

Chart 1. Addition

1	2	4	2	1	1	3	1	3	2
$\frac{2}{3}$	$\frac{3}{5}$	$\frac{1}{5}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{5}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{2}{5}$	$\frac{1}{3}$

Practice

1. 3 and 2 are ____. 2 and 3 are ____.
2. 2 and 1 are ____. 1 and 2 are ____.
3. 1 and 1 are ____. 2 and 2 are ____.
4. 1 and 4 are ____. 4 and 1 are ____.
5. 3 and 1 are ____. 1 and 3 are ____.

6.

2	1	1	1	4	2	3	3
1	3	2	4	1	3	1	2

7. 2 + 1 = 3 + 2 = 3 + 1 =
8. 1 + 2 = 1 + 4 = 2 + 3 =
9. 4 + 1 = 2 + 2 = 1 + 3 =

10. James went to the post office to buy two 2-cent stamps for his mother. He paid ____ for them.

11. Our teacher had 2 roses. Frances brought her 3 more. Then our teacher had ____ roses.

12. Alice had four dolls. Her mother gave her a new one as a birthday present. Alice then had ____ dolls.

Number Stories

1. Dan took 3 eggs from one nest and 1 egg from another. In all he took ____ eggs.

2. Fred had 3 red pencils. His father gave him 2 yellow pencils. Fred then had ____ pencils.

3. Two books and two books are ____ books.

4. Three windows and two windows are ____ windows.

5. 4 oranges and 1 orange are ____ oranges.

6. 2 candy bars and 3 candy bars are ____ candy bars.

7. 1 marble and 4 marbles are ____ marbles.

8. 3 cookies and 1 cookie are ____ cookies.

9. 1 pear and 3 pears are ____ pears.

10. Add:

2	1	2	1	3	2	4	3	1	1
1	4	3	2	1	2	1	2	3	1

Can you tell:

1. How many boys there are in this family?

2. How many girls there are in this family?

3. How many children altogether there are in this family?

Give the sums:

1	1	1	1	2	2	2	3	3	4
1	2	3	4	1	2	3	1	2	1

1. The children are playing fivepins. They are using 5 Indian clubs and a ball.

2. They stood the clubs as shown, about 1 foot apart. Do you know how much 1 foot is?

3. From the front clubs they walked away 5 steps, and drew a line as shown.

4. Each player had 2 chances to knock down the clubs with the ball.

5. Each club knocked down counted 1.

6. Which children made the same score?

	Tom	May	Joe	Ned	Ada	Bob
First turn	3	3	1	1	2	4
Second turn	1	2	2	4	3	1

Using What You Have Learned

1. One spring morning Ethel saw 2 bluebirds and 3 robins. How many birds of both kinds did she see?

2. The school nurse asked Sam how far he lived from school. Sam said, "I live 2 blocks north, and 2 blocks east." How many blocks does Sam live from school?

3. Last year Elmer was present every school day except 3 when he was ill and 2 when he went away with his father. How many school days did he miss?

4. Roger had 4 pennies and his mother gave him 1 more. Did Roger have enough money then to buy a 5-cent candy bar?

5. One black puppy and three brown puppies are how many?

6. Give these sums quickly:

1	2	4	2	1	1	3	1	3	2
2	3	1	2	3	4	1	1	2	1

The Figure That Means Not Any

1. The first time Owen rolled a ball in fivepins he did not knock down a club. He made 0 to show his score.

The figure 0 is called zero.

It means not any, none, or nothing.

This is the way Owen's score looked:

First turn	0
Second turn	3
Sum, or total	3

2. Gordon knocked down 4 clubs his first turn. With the next ball he did not knock down any clubs. Write his score.

Chart 2. Addition

Do you see that when we add zero to a number, or a number to zero, the sum is the same as the number?

0	0	2	1	0	4	3	0	5	0
1	3	0	0	5	0	0	4	0	2
1	3	2	1	5	4	3	4	5	2

1 2 3 4 5
One, two, three, four, five,
I caught a hare alive,

6 7 8 9 10
Six, seven, eight, nine, ten,
I let him go again.

You need to learn only ten figures:

0123456789

Start at the top to make each figure.

1. Edward found 7 eggs in one nest and none in another nest. He found ____ eggs in both nests.

Chart 3. Addition

0	7	0	9	0	8	0	6	0
6	0	8	0	7	0	9	0	0
6	7	8	9	7	8	9	6	0

Bobby stopped at the store and asked, "Mr. Jones, will you please give me 5 pennies for my nickel?"

"Yes, Bobby, a nickel equals 5 cents or 5 pennies," said Mr. Jones.

"If I had a dime, how many pennies would you give me for it, Mr. Jones?"

"I would give you 10 pennies for it, Bobby, or I'd give you 2 nickels."

1 penny is 1 cent. 5 cents = 1 nickel

10 cents or 2 nickels = 1 dime

¢ means cent or cents

1 dime = ____ cents. 5 cents = 1 ____.

1 dime = ____ nickels. 2 nickels = 1 ____.

1 nickel = ____ cents. 10 cents = 1 ____.

A dime = ____ nickels, or ____ cents.

1 nickel and ____ cents = 1 dime.

Number Stories

1. Aunt Jane gave Billy 2 white cookies. Then, when he was going home, she gave him 4 brown cookies. His mother asked him how many cookies Aunt Jane gave him. How many should Billy say?

2. Lyman's mother asked him how many oranges were in the house. He found 3 in the fruit basket and 3 in the ice-box. How many oranges did he find altogether?

3. Susan had 4 pennies. Her father gave her 4 more pennies. How many pennies did Susan have then?

4. Jim has 1 big rabbit and 5 little ones. He has ____ rabbits of both kinds.

Chart 4. Addition

3	1	4	2	5	1	3	1
3	6	4	4	5	5	5	8
6	7	8	6	10	6	8	9

Practice Page

Give the sums:

	a	b	c	d	e	f	g	h
1.	2	0	0	6	1	7	5	0
	0	4	7	0	8	0	5	6
2.	0	0	5	3	3	0	1	1
	5	0	0	3	0	2	8	5
3.	5	0	0	4	1	1	1	8
	5	9	8	4	3	2	4	0
4.	1	0	2	1	2	1	5	0
	6	5	3	5	4	6	5	5

5. Hugo put in his new bank 3¢ that he was saving. Later he earned a nickel and put that in his bank too. How much money had he in his new bank then?

6. Marie cut out 2 boy dolls and 4 girl dolls. She cut out___ of both.

7. Five cents in my pocket and five cents in my bank are___ cents altogether.

1. Ida bought a doll's fan and a doll. She paid ____ ¢ for them.

2. Herman bought a top and a little automobile. Both cost ____ cents.

3. Sam bought a doll's fan for his sister and an airplane for himself. He paid ____ ¢ for both of them.

4. A top and a broom together cost ____ ¢.

Chart 5. Addition

2	1	3	2	3	2	1	2
5	9	6	8	4	6	7	7
7	10	9	10	7	8	8	9

1. Jim brought 2 pumpkins from his garden and John brought 6 pumpkins. How many jack-o'-lanterns could they make?

2. Jim made 3 jack-o'-lanterns and John made 4. Together they made ____.

Hold your paper under each row and see how quickly you can write these sums:

	a	b	c	d	e	f	g
3.	0	2	5	4	1	3	2
	0	5	5	0	9	6	4
4.	2	3	1	0	2	3	2
	8	5	7	9	6	4	7

More Practice

Copy these and then write their sums:

	a	b	c	d	e	f	g	h
1.	2	2	3	2	3	2	3	1
	6	8	4	5	6	7	5	7
2.	3	1	2	1	0	1	2	5
	3	5	7	9	1	3	4	5

3. If you know the number of boys and the number of girls in a family, how can you tell the number of children there are in the family?

4. In the fruit basket there were 2 red plums and 7 blue plums. How many children could each have a plum?

5. A penny and 9¢ = ____¢ or 1 ____.

6. The sum of one and seven is ____.

7.	2 + 6 =	2 + 5 =	3 + 6 =
8.	3 + 5 =	3 + 4 =	2 + 8 =
9.	1 + 9 =	0 + 1 =	5 + 5 =

Number Stories

1. Susan paid 5¢ for an ice-cream cone and 3¢ for an eraser. How much money did she spend for both?

2. The first week that Jim had his new bank he put in 4¢. The next week he put in 2¢. How many cents did he have in his bank then?

3. Four boys and three girls sat in the first row. How many children sat in that row?

4. Four girls and five boys are invited to Jane's party. For how many guests must Jane plan?

5. A nickel and two pennies are ____ ¢.

Chart 6. Addition

5	4	5	6	4	5	7	4	5
1	2	3	1	3	4	1	5	2
6	6	8	7	7	9	8	9	7

Edwin's grandfather has a big barn where he lets the children play circus.

Help Edwin with his speech about the animals in the circus:

1. "We have 4 little dogs and 3 big ones, or ____ dogs in all.

2. "Six little chicks and their mother make a fine family of ____.

3. "You will see, swimming in a tub, 4 little black ducks and 5 yellow ones. They are the smartest ____ ducks in any tub.

4. "We have ____ prize lambs. 5 have blue ribbons and 4 have red ribbons."

1. For the high jump 7 boys held a blanket and 1 boy jumped into it. It took ____ boys for that trick.

2. Fred's pony did 4 tricks and Jack's pony did 5. How many pony tricks did the children see?

3. Arthur did 5 tricks on the turning pole and two on a ladder. Arthur did ____ tricks in all.

4. For the next act, 5 fat clowns and 1 thin clown did some funny tricks. There were ____ clowns in that act.

5. Five children + five children = ____.

Practice

Copy these examples, then add:

	a	b	c	d	e	f	g	h
1.	5	4	7	5	4	5	5	4
	2	5	1	3	2	1	4	3
2.	6	5	4	4	5	4	7	5
	1	3	2	5	1	3	1	4
3.	2	3	5	3	2	1	2	2
	5	6	2	4	6	9	8	7

4. Eva paid 5¢ for a candy bar and 3¢ for an eraser. Both cost how much?

5. The first week that Bob had his bank, he put in 5 pennies. The next week he put in a nickel. How much money did he have in his bank then?

6. Three boys and four girls rode to school in the bus. There were ____ children in the bus.

7. Billy walked 4 blocks and then rode 5 blocks. He went ____ blocks.

Practice

	a	b	c
1.	0 + 8 =	4 + 4 =	1 + 7 =
2.	1 + 6 =	0 + 9 =	3 + 5 =
3.	5 + 3 =	4 + 2 =	2 + 4 =
4.	8 + 0 =	2 + 6 =	5 + 3 =
5.	3 + 5 =	4 + 0 =	4 + 3 =

6. When Tommy went to visit his aunt, he rode 1 hour on the bus and 6 hours on the train. He rode for ____ hours.

7. Ruth saw 3 big white horses and 6 little white horses in a circus parade. She saw ____ white horses in the parade.

8. Charles had a nickel and a penny or ____¢.

9. Dick's coat cost 4 dollars and his cap 2 dollars. Both cost ____ dollars.

10. Joe mailed two small packages for his mother. It cost 3¢ to mail one package and 5¢ cents to mail the other. To mail both cost ____¢.

1. Jack wants to buy some jelly beans and a brown rabbit. That will take ____¢ and ____¢, or ____ cents.

2. Sue says that she can buy an ice-cream cup and a stick of candy because she has as much as ____ cents.

3. Paul has a nickel. He wants a stick of candy and a brown rabbit. Has he enough money?

4. David is going to buy some jelly beans and a taffy apple. Together they will cost ____¢.

5. A brown rabbit and an ice-cream cup will cost ____¢.

6. Two rabbits will cost ____¢.

7. Make up two number stories about things in the store.

1. Glen bought soup and an apple to eat with his lunch from home. He paid ____¢.

2. Ethel bought soup and a roll. She needed ____¢ to pay for what she got.

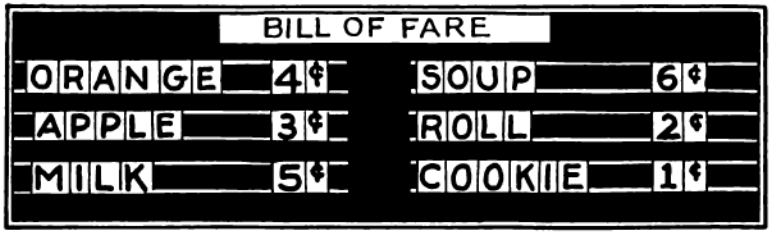
3. Carl wanted to know how much an orange and soup cost. What is your answer?

4. What is the sum of 8 and 2?

5. Three and seven are how many?

Chart 7. Addition

4	8	7	3	9	6	8	6	7	6
6	1	2	7	1	3	2	4	3	2
10	9	9	10	10	9	10	10	10	8



How much did each of these children pay at the lunch room?

1. Eric	William	Leona	Alice
Apple 3¢	Milk	Orange	Orange
Roll 2¢	Apple ___	Roll ___	Soup ___
5¢			

2. Harold	Marie	Kenneth	Martha
Apple	Orange	Apple	Cookie
Milk ___	Cookie ___	Orange___	Milk ___

3. Joseph	Edward	Ellen	Jessie
Soup	Milk	Apple	Orange
Roll ___	Roll ___	Soup ___	Milk ___

4. Ada	Fay	Ned	Bob
Milk	Roll	Orange	Soup
Milk ___	Soup ___	Orange___	Orange___

Practice

Give the sums:

1.

7	6	8	6	9	3	8	4
3	4	2	3	1	7	1	6

2.

9 + 1 =	8 + 2 =	6 + 2 =
6 + 3 =	7 + 2 =	7 + 3 =
3 + 7 =	6 + 4 =	4 + 6 =

3. Write these examples in a shorter way, then add:

Four and six are_. Seven and two are_.
Six and two are_. Three and seven are_.
Six and four are_. Six and three are_.
Nine and one are_. Seven and three are_.
Five and two are_. Eight and two are_.

4. Give the sums, and then write the answers:

4	5	6	5	6	7	3	5
2	4	2	2	4	2	7	3

7	6	5	8	4	7	4	4
3	3	3	2	3	3	5	6

The second grade children planted tulip bulbs on the school lawn.

1. Billy-Joe planted 1 in the shrubs and 6 in the round bed. He planted ____ in all.

2. Frank planted 4 in the long bed and 6 among the shrubs. Altogether he planted ____.

3. Bess planted 3 in the round bed and 7 in the long bed. She planted ____ tulips.

4. Sam planted 2 single tulips and five double ones. He planted ____ tulips.

5. Helen planted 6 bulbs in front of the school and 4 at the side. In all she planted ____ bulbs.

6. 3 + 7 = 4 + 6 = 5 + 4 =

The children watched the plants grow until tulip time. No one touched them.

On the day of the spring program the children decided to pick ten tulips for each room. They put only two colors in each bouquet.

1. For the first grade Bob picked 6 pink tulips and____ white ones.

2. Tom picked 5 white tulips and____ yellow ones for the third grade.

3. For the fourth grade Nan chose 3 red ones and_____ yellow ones.

4. $9 + ? = 10$. $4 + ? = 10$.

5. $7 + ? = 10$. $8 + ? = 10$.

To Find What You Know

Group 1

Give the sums quickly:

1.	1	3	4	0	2	1	7	3
	2	3	1	6	3	0	1	1
	—	—	—	—	—	—	—	—
2.	5	1	0	2	6	8	9	1
	5	9	3	1	0	1	0	5
	—	—	—	—	—	—	—	—
3.	0	4	5	0	7	1	0	9
	4	4	1	0	0	3	2	1
	—	—	—	—	—	—	—	—
4.	5	1	8	2	0	6	3	0
	0	6	0	2	5	1	0	7
	—	—	—	—	—	—	—	—
5.	1	2	0	1	0	1	0	1
	1	0	9	7	1	8	8	4
	—	—	—	—	—	—	—	—

6.	2 + 3 =	9 + 1 =	0 + 6 =
7.	1 + 7 =	2 + 1 =	0 + 0 =
8.	8 + 0 =	4 + 4 =	1 + 3 =

Group 2

Give the sums quickly:

1.	6	3	2	4	7	2	8	4
	3	2	8	0	2	6	2	3
2.	3	5	6	7	4	6	2	1
	4	4	2	3	5	4	7	7
3.	3	2	4	3	4	5	2	3
	5	5	6	6	2	3	4	7

Did you miss any sums? You should practice again and again giving the right sums for those that you had wrong.

Group 3 (For all good workers)

4. Spotty has 4 black puppies and 3 black and white puppies. How many puppies has Spotty?

5. Mr. Smith took his 5 children to the circus and Mr. Jones took his 3 children. How many children did both men take to the circus?

Five Little Puppy-Dogs

Five little puppy-dogs,
In the kennel door,

One didn't like a crowd,
And then there were four.

Four little puppy-dogs,
Running 'round a tree,

Mother called a puppy home,
And then there were three.

Three little puppy-dogs,
Playing with a shoe,

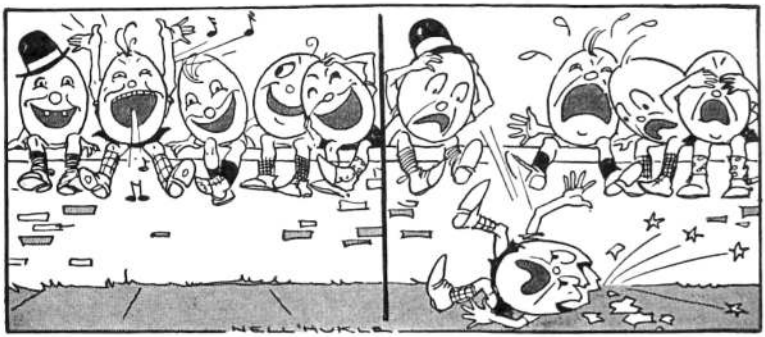
Foxy ran to chase a cat,
And then there were two.

Two little puppy-dogs,
Barking as they run,

Curly left to hide a bone,
And then there was one.

One little puppy-dog,
Sitting all alone,

He went in to take a nap,
And then there was none.



This is a new kind of number story.

1. Five humpty dumpties sat on a wall;
   One humpty dumpty had a great fall;
   ____ humpty dumpties were left on the wall.

2. Anne bought three sticks of candy. She gave one stick to her little sister.

On your paper draw a picture of the candy that Anne bought.

Draw a ring around the candy that she gave away.

How many sticks did she have left?

3. Jane saw four butterflies on a flower. One of them flew away. ____ butterflies did not fly away.

Subtracting

1. Jesse had five pennies. Then he spent 4 pennies for a lollipop.

Draw the pennies Jesse had at first.

Cover the pennies that he spent.

How many pennies did Jesse have left?

2. Edith bought 5 big chocolates. On her way home she ate 4 of them. When she got home, she found there was 1 left.

4 from 5 is 1

When we take 4 from 5, we subtract 4 from 5 and get 1.

Subtract means "take away" or "take from."

To subtract 4 from 5 you may write the numbers this way.

$$\begin{array}{r} 5 \\ 4 \\ \hline 1 \end{array}$$

First write the larger number. Under it write the smaller number. Then subtract.

The example above is read: 4 from 5 is 1.

1. George had 4 rabbits. He traded 1 of them for a puppy. How many rabbits did George have left?

2. Sally had 5 butterflies under her hat. When she looked under the hat, 4 butterflies flew away. How many were left under the hat? 4 from 5 is____.

3. Bob bought 5 glass marbles. He sold 1 to Fred. Then Bob had____of them left.

Chart 1. Subtraction

5	3	5	4	2
1	1	4	1	1
4	2	1	3	1

1. Four boys started to slide down hill on a big sled. We saw two of them fall off. How many boys were left on the sled?

2. Joe and Tom lived on a farm. Last spring their father gave them three lambs. They sold two of them. How many of their lambs did they keep?

3. There were five robins in a bird bath. Three of them flew away. There were ____ left.

Chart 2. Subtraction

3	4	4	5	5
2	2	3	3	2
1	2	1	2	3

1. Billy had 5 pennies in his pocket. After he stood on his head there was 1 penny in his pocket. ____had dropped out.

You know how to save time by using + and = in addition.

Instead of writing 1 from 5 equals 4, we may use the sign − and write 5−1=4. The sign − is called the minus sign and means to subtract. We read the example: 5 minus 1 equals 4.

In subtraction, the larger number is written first.

Read the examples below:

2. 5−2=3 4−3= 5−3= 4−2=

3. 3−2= 2−1= 4−1= 5−4=

Using Signs

Write these examples in the short way:

1. 4 minus 2=____.
2. Five minus four equals____.
3. 5 minus 2=____.
4. Five minus three equals____.
5. 4 minus 1=____.
6. Four minus three equals____.

In an example written like this $\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$ the sign − also means to subtract:

7. Give the answers to these examples:

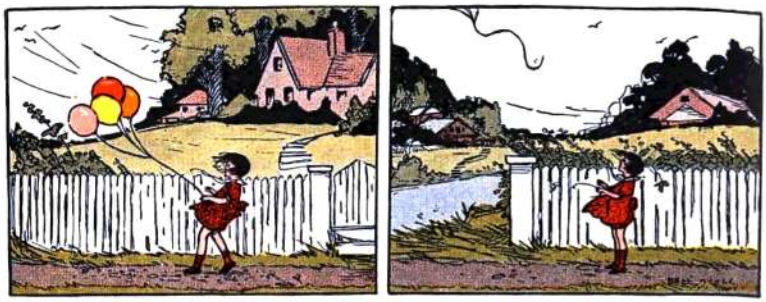
$$\begin{array}{r} 5 \\ -2 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ -3 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ -3 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ +6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ -2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ -1 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ -4 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ +5 \\ \hline \end{array}$$

8. Write the answers to these examples on a paper placed below the examples:

$$\begin{array}{r} 4 \\ -2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ +6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ +4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ -1 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ -1 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ +2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ -1 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ +3 \\ \hline \end{array}$$

9. Copy on your paper the examples below and write your answers:

5−2= 4−3= 3−1= 4−2=



Joan had 4 balloons. The string broke, and the four balloons sailed away. How many balloons did Joan have then?

4 balloons from 4 balloons = 0.

$$4 - 4 = 0$$

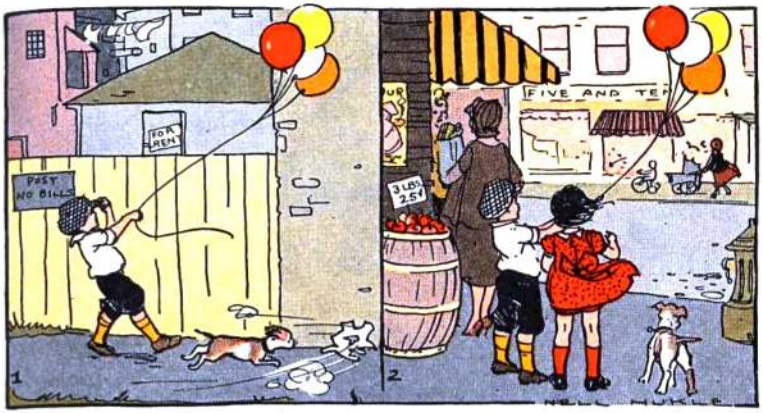
$$\begin{array}{r} 4 \\ -\,4 \\ \hline \end{array}$$

Roy's mother gave him 5 pennies. He bought a 5-cent candy bar. How much of the money had he to put into his bank?

Chart 3. Subtraction

A number subtracted from the same number leaves 0.

1	2	3	4	5
$-\,1$	$-\,2$	$-\,3$	$-\,4$	$-\,5$
0	0	0	0	0



Uncle Will gave Jack and Joan each 4 colored balloons. On the way home Joan asked, "Jack, how many balloons did you lose?"

Jack answered, "I did not lose any. I still have 4." $4-0=4$

Chart 4. Subtraction

Subtract 0 from any number and the answer is the number itself.

0	1	2	3	4	5
0	0	0	0	0	0
0	1	2	3	4	5

Should you add or subtract?

1. Ruth buys a lollipop for 1¢ and a candy banana for 2¢. How many pennies must she give for both?

2. Fred has a nickel to spend. If he buys a chocolate bar, how much money will he have left?

3. How much must Edna pay for a candy orange and a lollipop?

4. Dick has a nickel. How many pennies should he get in change for it?

5. What two things in the play store can Dick buy with his pennies? Will he have any pennies left?

6. Mary wants to change a dime. She should get a nickel and ____ pennies.

Practice

Write only the answers.

Add:

1.	5	6	8	4	3	0	2	4
	4	3	2	3	7	8	6	0

Subtract:

2.	2	5	4	2	3	4	3	5
	1	2	3	0	3	2	0	3

Watch your signs:

3.	1	1	3	6	5	3	5	5
	−0	−1	+7	+3	−2	+6	−0	−3

4. George got 5 pieces of chocolate for a nickel. If he keeps 2 pieces for himself, how many pieces can he give to Tony?

5. Ben had 6 books and he got 4 more for his birthday. Then he had ____ books.

6. Monday morning, Nell had 5 clean school dresses. Saturday morning, there were 2 of them left. She had worn ____.

7. Two calves in a pen and 7 in a yard are ____.

The second grade children are filling some Thanksgiving baskets.

1. Ethel put her 3 apples into one basket. Sam said, "We put 5 apples in the other baskets." How many more apples are needed to make 5 in this basket?

In other baskets

In this one

Needed to make 5 in this one

To find how many more are needed, you subtract the smaller number from the larger.

$$\begin{array}{r} 5 \\ 3 \\ \hline ? \end{array}$$

2. The children have 4 chickens; they need 5, so they must get ____ more.

1. Our room has 5 windows. Caroline brought a wreath for one of them. How many more must the class get, so they can put one in each window?

2. Instead of one big Christmas tree the class wanted to have four little ones. Jimmie's father gave them 3 trees. They had to get ____ more.

3. The class wants five dollars for their Christmas candy. They have 2 dollars. How many more must they get?

4. Mary thinks that 4 dollars will be enough for the candy. Then they would need only ____ dollars more.

5. 1+?=5. 3+?=4. 2+?=5.

Number Stories

1. Ada had 4 dolls and her sister gave her one more. Ada then had ____ dolls.

2. May has 3 pennies. She wants to buy a taffy apple that costs 5 cents. How many more cents does she need?

Draw the cents that will buy an apple.

Draw and color the pennies May has.

Draw the pennies that she needs.

3. Tom's scores in a game were 5 and 3; Sam's scores were 2 and 4. Who won?

4. Ted ate 2 of his 4 plums. He had ____ left.

Draw pictures of the plums Ted had.

Draw a line around those he ate.

Color the plums he had left.

5. To find the answer to "What is the sum?" I should _____.

6. When a number story asks "How many are left?" I should _____.

7. When a number story asks "How many more are needed?" I should _____.

Ben's mother sent him for 2 quarts of milk. The milkman said, "I'll have to give you 1 quart bottle and 2 pint bottles, Ben."

Ben wondered. When the bottles were empty, he filled the 2 pint bottles with water and poured the water into the quart bottle. The quart bottle was just full. Then Ben knew that:

2 pints = 1 quart

1 quart = 2 pints

Then 2 quarts = ____ pints.

And 2 pints and 1 quart = ____ quarts.

Also, 1 quart and 1 pint = ____ pints.

4 pints will just fill ____ quarts.

Judy's puppies

Topsy's puppies

1. What is the difference between the number of puppies that Judy has and the number that Topsy has?

2. Jane has 4 oranges; Ned has 2 oranges.

Jane's oranges

Ned's oranges

Jane has ____ more oranges than Ned.

3. Edgar has 5 marbles; Ted has 3 marbles. What is the difference between the numbers of marbles they have?

On your paper, draw Edgar's marbles. Draw Ted's marbles. Show the difference.

4. James has five pennies and Joe has no pennies. What is the difference between the larger and the smaller number?

1. Gordon has scored how many more times than Fred?

2. How many fewer scores has Fred than Gordon?

3. The difference between the scores is ____.

4. What did you do to find the answers to the first three questions?

5. To find how many more, how many fewer, or the difference, _____ the smaller number from the larger number.

6. Grace is 2 years old and her brother is 4 years old. What is the difference between their ages?

7. The difference between 5 and 1 is ___.

Number Stories

1. Janet bought 4 lemons for lemonade. She used 3 of them and had ____ left.

2. Ed has 5 black rabbits and 3 white ones. How many more black ones has he?

3. Paul has 3 dollars in the bank. His older brother, Jim, has 5 dollars. Paul has ____ fewer than Jim.

4. Mrs. Smith said, "There will be 5 people for dinner tonight, but we have only 2 chops." How many more did she need so that each might have a chop?

5. What is the difference between the cost of a 5¢ candy bar and a 2¢ lollipop?

6. To find how many are left you ____.

7. You _____ to find how many more or how many fewer one number is than another.

8. To find how many more are needed, you _____.

9. To find the difference, always ____.

Bobby, Jack, and Billy stopped at the bakery shop to buy something to eat.

1. Bobby had a nickel and bought a 3¢ roll. The baker gave him back ____¢.

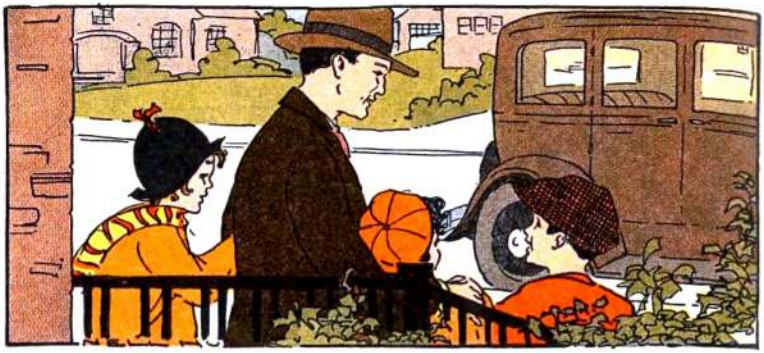
2. Jack said, "A little cake costs 5¢ and a cookie only 2¢. The cake costs ____¢ more. I'll take the cookie."

3. Billy wanted to buy a 5¢ cake but he had only 4¢. He needed ____¢ more.

4. Instead, Billy bought two 2¢ cookies. He paid ____¢ for them.

5. Do what each sign tells you to do:

3	4	5	5	5	6	7	3
+7	−4	−1	+0	−0	+2	+2	−3



1. Betty's father will take six children for a ride. There are three children in Betty's family. How many more children may go with them?

2. Marie asked 8 children to come to her party. One did not come. How many came?

3. 7 from 7 is ____. 0 from 6 is ____.

4. 0 from 7 is ____. 6 from 6 is ____.

Chart 5. Subtraction

6	7	7	6	7	7	8	6
0	7	0	6	6	1	1	3
6	0	7	0	1	6	7	3

1. In the peanut hunt, Jim found 6 peanuts and Alfred only 3. Jim found ____ more than Alfred.

Subtract. Write only the answers.

2.	7	6	7	8	6	7	6	7
	1	3	7	1	0	6	6	0
3.	3	5	4	0	2	7	8	1
	3	5	2	0	1	0	1	0
4.	5	2	2	5	4	3	4	7
	1	0	2	2	0	2	3	1
5.	6	4	5	3	6	4	3	5
	0	1	3	0	3	4	1	0

Practice

1. 2 from 2 is ____. 1 from 2 is ____.
2. 2 from 3 is ____. 3 from 4 is ____.
3. 1 from 4 is ____. 2 from 5 is ____.
4. 3 from 6 is ____. 2 from 4 is ____.
5. 1 from 5 is ____. 0 from 7 is ____.

6.	$3-1=$	$0-0=$	$5-2=$
7.	$7-6=$	$8-1=$	$4-3=$
8.	$1-1=$	$6-6=$	$6-3=$
9.	$5-4=$	$4-2=$	$7-1=$
10.	$7-7=$	$3-3=$	$5-3=$

Subtract:

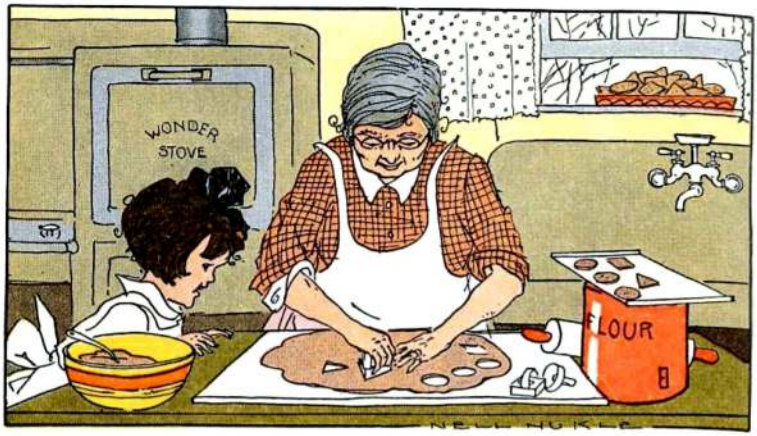
11.	8	2	4	7	3	4	6	5
	1	2	3	0	1	2	6	1
12.	4	5	3	4	7	2	5	1
	0	4	2	4	6	1	2	1
13.	6	3	4	5	7	5	7	2
	3	0	1	3	1	5	7	0

1. This morning Dick and his father brought in 3 loads of hay. This afternoon they brought in 2 loads. They brought in ____loads today.

2. Dick showed Bob two horses in the barn. Dick said, "Father has five horses but he is using the others." How many was he using?

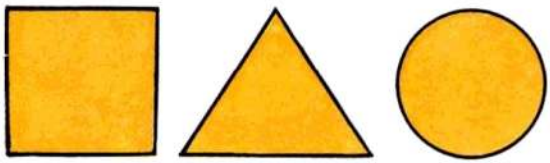
3. Dick had 6 calves in a pen. When he went out to feed them, the pen was empty. He found 3 of the calves behind the barn. How many were still missing?

4. Three white and 5 gray ducks are ____ of both.



Grandmother's cookies are shaped like:

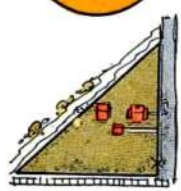
a square a triangle a circle

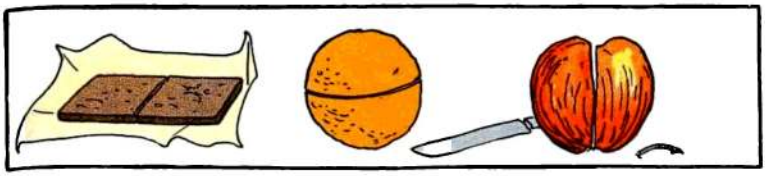


What shapes do you see in the bird house? Point to them.

Billy made a jack-o'-lantern.
For eyes he made _____.
The nose is a _____.
The ears are _____.

Grandfather lives on a lot in the shape of a ____ like this.





Ralph had a candy bar to share with Mary. It was marked across the middle. When the bar was broken along that mark, there were two parts of the same size. Parts of the same size are equal parts.

Ralph said, "Here is your half, Mary."

One-half is written $\frac{1}{2}$

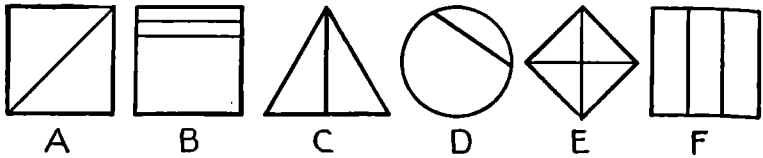
When Ralph broke the bar into halves, how many equal pieces were there? How many halves were there? Write the figures that show Ralph's share.

When a whole orange is cut into 2 equal parts, what is each part called?

To cut an apple into halves you must cut it through the ____. One = ____ halves.

One pint is ____ of a quart.

There are ____ halves in anything.



1. Which pictures show halves?

2. On your paper draw a square, a circle, and a triangle. Color $\frac{1}{2}$ of each.

3. A stick of candy was broken into halves. There were ____ pieces. Each piece was ____ of the stick of candy.

4. Fold a piece of your tablet paper to show $\frac{1}{2}$ of it.

5. Show one-half of a piece of string.

6. Draw a glass half full of water.

7. One-half of anything is one of ____ equal parts.

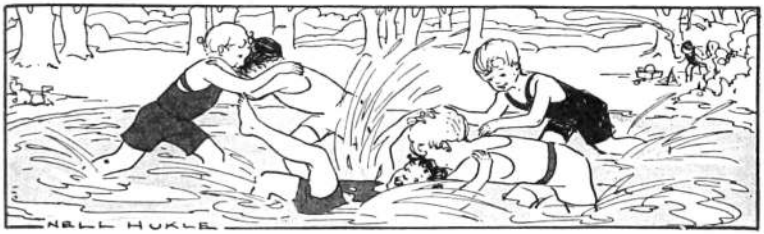
8. A pint is what part of a quart?

9. A nickel is what part of a dime?

10. How many halves are there in:

a roll	a big cake
an apple	a little cake
an orange	a cherry pie

11. In anything there are ____ halves.



1. Seven boys took their lunch down to the lake. Five of them went swimming. The others arranged the lunch under a tree. How many boys arranged the lunch?

2. Nancy found eight eggs in the nests. Her grandmother used seven of them to make a cake. How many eggs were left?

3. "I put away six little cakes for our supper," Mary Ellen said. "Mother gave me one of them after school," said Ernest. How many cakes were left for supper?

Chart 6. Subtraction

8	6	8	6	7	6	7	9
7	1	6	5	5	4	4	7
1	5	2	1	2	2	3	2

When Jimmie went to get the cows, he found 7 of them feeding near the brook. He thought, "Uncle said to bring 9 cows. There must be ____ more somewhere."

Subtract. Give the answers quickly:

1.	8	7	9	6	8	6	7	6
	6	4	7	5	7	4	5	1
2.	6	5	8	7	2	9	6	7
	3	2	1	4	0	7	1	6
3.	7	6	8	7	6	8	6	7
	5	4	7	1	6	6	5	4
4.	9	5	6	4	7	6	6	8
	7	3	5	3	5	4	1	6

1. Mandy baked a big cake and eight little cup cakes. Four of the cup cakes are for Ann's party. How many of them may be eaten before the party?

2. Laura had a dime. She spent 4¢ for gum drops. How much money did she have then?

3. Otto's mother sent him to the store for 6 eggs. When she opened the bag she said, "Why, Otto, 2 eggs are broken." Otto thought, "___ eggs are not broken."

Chart 7. Subtraction

8	9	8	9	6	9	8	10	10
0	0	8	8	2	9	4	9	4
8	9	0	1	4	0	4	1	6

Practice

Subtract. Write only the answers:

1.	8	9	8	6	9	10	8	9
	4	8	0	2	9	4	8	0
2.	6	8	6	7	8	6	9	7
	4	6	1	5	7	5	7	4
3.	9	8	9	10	6	8	8	10
	9	7	0	4	1	4	8	9
4.	8	7	9	6	9	6	10	6
	6	5	7	4	8	5	9	1

Add. Write only the answers:

5.	0	1	5	1	2	7	4	1
	5	9	5	6	4	0	6	7

6. Peggy had eight cents. She bought a piece of ribbon that cost seven cents. How much money did she have left?

7. Charles saw a 7-dollar sweater which he wanted to buy, but he had only 5 dollars. He needed ____ dollars more.

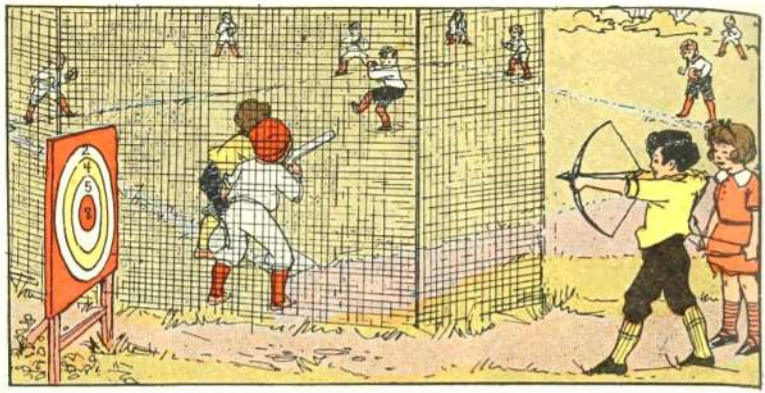
Practice

1. Al paid 1 dollar for a bathing suit and 5 dollars for a toy sail boat. Both cost him ____ dollars.

2. Archie saw a blue bathing suit for 5 dollars and a red one for 2 dollars. He said, "I'll take the red one, it costs ____ dollars less."

Notice the signs as you work these examples:

	a	b	c	d	e	f	g	h
3.	5	9	6	7	10	6	8	5
	+3	−7	+4	+3	−9	+3	−6	−3
4.	4	7	8	4	8	3	2	8
	+6	−4	−6	+3	−4	+7	+6	−1
5.	7	3	4	6	2	0	10	7
	−4	+6	+5	−4	+8	+8	−9	+2
6.	8	6	6	4	2	7	8	9
	−8	−2	−6	+0	−0	−5	−4	−7



1. On Play Day two teams played baseball. The Red's score was 7 runs. The Yellow's score was 4 runs. What was the difference between their scores?

2. Some of the second grade children shot at a target with bows and arrows. These are the points made by each child:

	Frank	Ben	Kate	Ellen	Sam
First turn:	0	5	2	0	8
Second turn:	8	4	4	0	2

Whose total score is highest? Whose total score is lowest?

3. What is the difference between the highest score and the lowest score?

1. At the end of the balloon game, the Yellows had 7 balloons not broken and the Reds 9. The Reds won by ____.

2. Five girls and four boys played drop the handkerchief. ____ children played the game.

3. That day the Reds won 8 games and the Yellows 6 games. The Reds won ____ more games than the Yellows.

4. Notice each sign, and work these:

7	4	9	6	3	5	8	4
−5	+3	−7	−5	+6	+4	−6	+0

Practice

Subtract. Write only the answers:

	a	b	c	d	e	f	g	h
1.	9	8	8	10	9	9	6	9
	8	4	0	9	9	0	2	9
2.	8	7	10	6	9	8	9	4
	1	4	9	2	7	4	8	3
3.	9	7	8	8	9	6	10	8
	9	5	6	8	0	3	4	0
4.	10	8	6	8	6	4	7	9
	9	4	2	0	4	0	4	8

	a	b	c
5.	4 − 4 =	7 − 4 =	3 − 2 =
6.	10 − 9 =	10 − 4 =	9 − 7 =
7.	7 from 8 =	2 from 6 =	4 from 8 =
8.	3 from 6 =	9 from 9 =	4 from 10 =

9. The difference between 6 and 4 is ___.

10. Four are ___ fewer than seven.

1. Ted caught 4 fish on Monday. Tuesday he caught 9. He said, "That's ____ more fish today than yesterday."

2. Ruth has 7 cents; Sue has 3 cents. How many more cents has Ruth than Sue?

3. Nan had 8¢ when she went into a store. She bought some beads that cost a nickel. How much did she have left?

4. The difference between 3 and 8 is ____.

Chart 8. Subtraction

10	9	7	7	8	8	8	9	9
8	4	3	2	5	2	3	6	3
2	5	4	5	3	6	5	3	6

1. Some children made a store with boxes. Dave got 6 wooden boxes and Jim got 4. They used all ____ of the boxes.

2. Clara and Amy each made 5 signs to show what the children had to sell and what each thing cost. Altogether the girls made ____ signs.

3. Amy's mother bought a glass of lemonade and a flower. She paid ____¢.

4. For two plums Sam paid ____¢.

5. Bernie bought a pop-corn ball and an apple. He paid ____¢ for both.

1. Bess, Alice, and Verna had 10 dolls in their doll show. Six dolls had little chairs to sit on. The ____ other dolls had to sit on little boxes.

2. Seven of the dolls were dressed as girls and the ____ other dolls as boys.

3. Only two of the dolls were talking dolls. ____ dolls could not say anything.

Chart 9. Subtraction

10	9	10	10	9	10	10	9	10
1	1	5	2	2	6	3	5	7
9	8	5	8	7	4	7	4	3

Practice

A. Subtract. Say the answers quickly.
B. Then write them on your paper.

	a	b	c	d	e	f	g	h
1.	5 2	2 2	2 0	6 3	7 4	10 9	9 6	10 7
2.	5 3	5 5	4 0	8 1	9 7	8 4	10 3	8 3
3.	4 3	4 4	3 0	7 1	6 4	6 2	8 2	9 2
4.	4 2	1 1	5 0	7 6	7 5	9 8	8 5	10 6
5.	3 2	3 3	1 0	10 2	8 6	9 9	7 2	6 6
6.	2 1	10 4	9 5	7 0	6 5	8 8	7 3	10 5
7.	10 7	8 5	10 1	9 4	10 8	6 1	8 7	5 4

Practice

A. Subtract. Say the answers quickly.
B. Then write them on your paper.

	a	b	c	d	e	f	g	h
1.	10	9	10	10	9	10	10	9
	6	2	3	5	1	2	7	5
2.	9	10	10	9	10	9	10	10
	1	5	3	5	6	2	1	2
3.	10	8	9	7	8	9	7	9
	8	2	4	2	3	6	3	3

4. George had a dime when he started for his father's office. He paid 7¢ carfare. How many cents did he have left?

5. When George's mother telephoned for him to come home, George said to his father, "I have only 3 cents, and the carfare home is 7 cents."

Would a nickel more be enough for George's carfare? How much would George have left if his father gave him a dime?

How much would Jean have to pay:

1. For a cotton chick and a colored egg?
2. For two chocolate eggs?
3. For an Easter card and a red egg?
4. For a colored egg and a basket?
5. How much more does a small nest cost than a basket?
6. How much less would Jean pay for a chocolate rabbit than for a cotton one?
7. The difference between the cost of a colored egg and a chocolate egg is ____¢.
8. Jean had enough money to buy a cotton rabbit. She bought a cotton chick instead, and had ____¢ left.

Buying Presents

1. If you bought any of the following things and gave the storekeeper a dime, what change should you get?

a basket	a cotton chick
a candy egg	a small nest
a brown rabbit	an Easter card
a colored egg	a chocolate egg

2. May has a nickel. How much more does she need:

to buy a cotton rabbit?
to buy a chocolate rabbit?
to buy a cotton chick?
to buy a small nest?

3. Make one good number story about some of the things shown in the window.

Number Stories

1. Agnes saw four boys on a big log, and three boys up a tree. How many boys did she see in both places?

2. Homer had nine apples. He gave two apples to Ray and had ____ apples left.

3. George owned 5 puppies, but he sold 3 of them to Fred. George had ____ left.

4. Margaret picked three roses from one bush and five from another. How many roses did she pick?

5. Jane drew a picture with three girls and four boys in it. Altogether Jane drew ____ children.

6. Charles had ten cents. He bought some candy for four cents. How many cents did he have left?

7. Nine are ____ more than four.

8. Lee counted 10 boys out in the water. A minute later he saw only 8. How many were missing?

More Number Stories

1. Kate had 9 chicks. One morning she found only 3. How many chicks were gone?

2. Henry had eight tomato plants. The frost killed three. Eight plants less three plants are ____ plants.

("Less" means "take away" or "subtract.")

3. Ella planted nine rose bushes. Six of them lived. The difference between 9 and 6, or ____, did not live.

4. Myrtle saw three robins in one nest, and five in another. How many robins did she see in both nests?

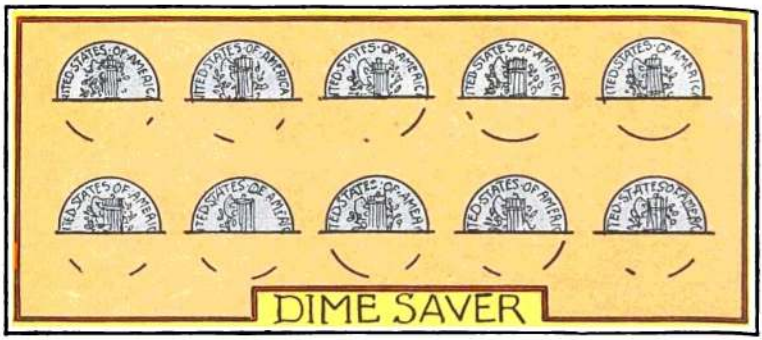
5. How many more robins did Myrtle see in one nest than in the other?

6. The difference between 6 and 10 is ___.

7. When you "take from" you _____.

8. When you put numbers together to get a larger number, you _____.

9. Steve needed 5 different school books and his sister needed 4. Their father had to pay for ____ books.



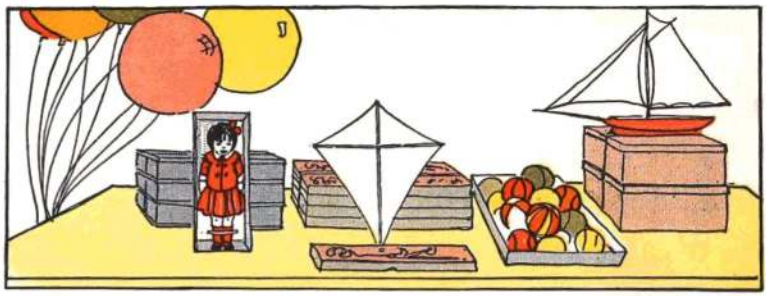
Joan's father gave her a dime-saver. Every time she got a dime she put it into a little pocket in her dime-saver. Before long she had ten dimes.

"Ten dimes equal how many pennies?" her older brother, Jack, asked her.

Joan said, "One dime equals ten cents, and I can count the cents by tens this way: ten, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred. Ten dimes equal one hundred cents or one dollar."

Count by ones to one hundred.

Count by tens to one hundred and write the numbers as you count.



Each toy on this table costs 10¢.

Two boats cost two dimes or 20¢.
Three dolls cost three dimes or ____¢.
Four balls cost ____ dimes or ____¢.
Five kites cost ____ dimes or ____¢.
Seven balloons cost ____ dimes or ____¢.
30¢ = ____ dimes. 90¢ = ____ dimes.
50¢ = ____ dimes. 40¢ = ____ dimes.
20¢ = ____ dimes. 80¢ = ____ dimes.
60¢ = ____ dimes. 70¢ = ____ dimes.

Write these on your paper:

Forty cents = 40¢. Ninety cents = ____¢.
Sixty cents = ____¢. Seventy cents = ____¢.
Twenty cents = ____¢. Thirty cents = ____¢.
Eighty cents = ____¢. Fifty cents = ____¢.

Teen Numbers

Tom bought a pad and pencil for 15¢.

Sara had a dime and 3 pennies or thirteen cents. Thirteen cents = 13¢.

Frank is 8 years old and his brother is 18.

The numbers from eleven to twenty are written in this way:

eleven	twelve	thirteen	fourteen
11	12	13	14
fifteen	sixteen	seventeen	eighteen
15	16	17	18
nineteen	twenty		
19	20		

Read aloud the number names above.

11¢ = 1 dime and 1 penny. 10¢ + 1¢ = 11¢.

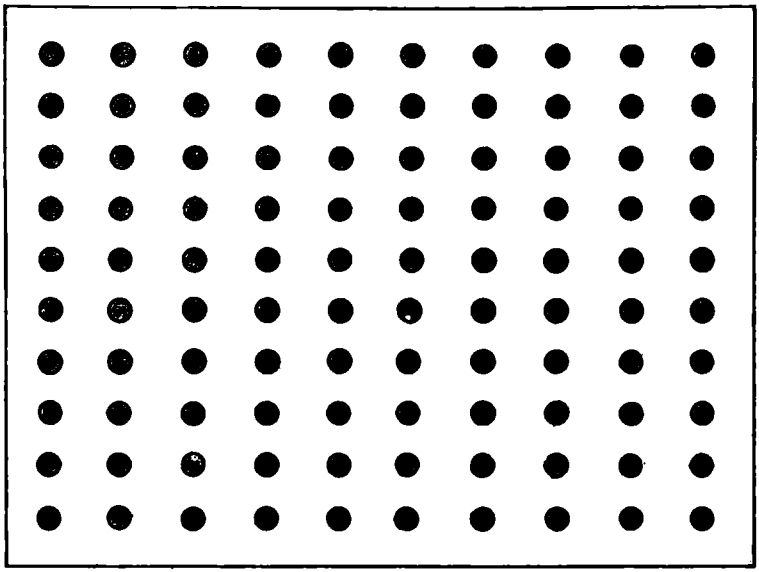
11 = 1 ten and 1 one. 10 + 1 = 11.

12¢ = __ dime and __ pennies. 10¢ + __¢ = 12¢.

12 = __ ten and __ ones. 10 + __ = 12.

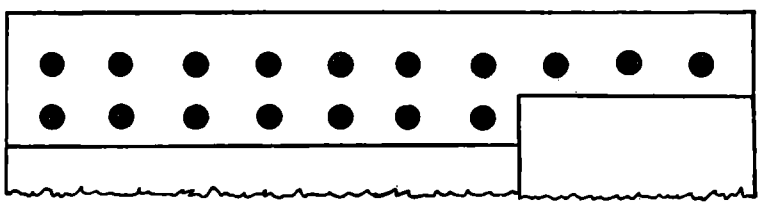
19¢ = __ dime and __ pennies. __¢ + 9¢ = 19¢.

19 = __ ten and __ ones. 10 + __ = 19.



How many dots are in each row above?

Jo has a chart like the one above. With two pieces of paper she is showing 17.



Jo used 1 row and __ dots to show 17.

Try to show 14 on the big chart above.

Show 18, 11, 15, 19, 10, 20, 16, 4, 8.

Other Two Place Numbers

Walter spent 68¢ at the circus.

Dorothy and her mother drove 87 miles in their automobile.

Morgan weighs 45 pounds.

There are 36 boys and girls in our class.

17¢=1 dime and 7 pennies.

17=1 ten and 7 ones. 17=10+7.

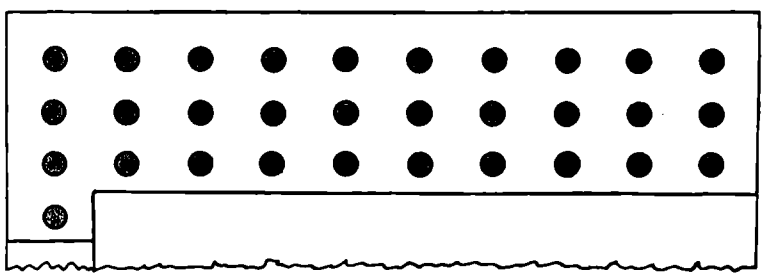
32¢=3 dimes and 2 pennies.

32=3 tens and 2 ones, or thirty+two.

48¢=____dimes and____pennies.

48=____tens and____ones, or forty+eight. 48=40+8.

Jane is showing 31 on this chart.



On page 87, show 57, 86, 42, 38, 59, 98, 33, 50, 64, 75, 26, 66, and 80.

Tad is going to let some of the boys and girls at the picnic ride on his pony. Each one wants to ride first.

Tad and Gordon numbered tickets from 1 to 100, and shook them in a hat. Each child took a ticket.

Tad said, "Whoever has the smallest number rides first. The one with the next larger number rides next, and so on."

These numbers were drawn from the hat:

68, 6, 60, 11, 92, 33, 54, 89, 21, 95.

Write the numbers in the order in which the children will ride.

Finding Pages

1. What is the number of this page?

2. Which way must you turn in this book to find: Page 29? Find it quickly. Page 94? Find it. Page 52? Find it.

3. Which page is nearer the front of the book: 40 or 50? 68 or 53? 89 or 92?

4. Which page is nearer the back of the book: 28 or 81? 73 or 37? 75 or 57?

5. Who can find page 39 first? Page 93?

6. In a race to find page 37, you open your book to page 45. Should you turn forward or backward?

7. If you want page 38 and open your book to page 26, you should turn _____.

8. You open your book to page 54 but you want page 45. You should turn ____.

9. You want to find page 68 and you open your book to page 86. You should turn ____.

10. Who can find page 98 first? Page 13? Page 23? Page 77? Page 100?

Practice

Write the sums:

	a	b	c	d	e	f	g	h
1.	3	7	3	6	6	3	2	5
	5	3	6	4	3	7	6	3

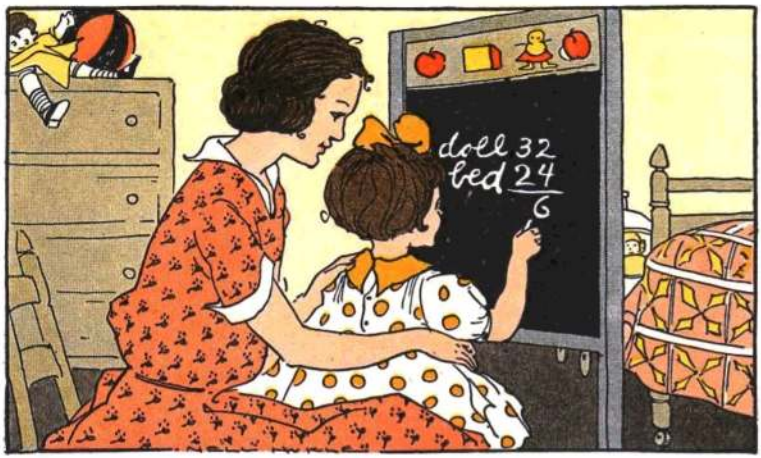
Subtract. Write the answers:

2.	9	8	9	8	8	9	7	9
	6	3	5	2	5	3	3	7

Notice the signs. Write the answers:

3.	3	6	7	6	9	4	9	5
	+4	−4	−5	+2	−4	+5	−2	−2
4.	2	5	10	2	4	2	10	8
	+5	−3	−4	+7	+3	+8	−8	+2

	a	b	c
5.	10 − 7=	5 − 3=	10 − 2=
6.	8 − 6=	10 − 6=	6 − 5=
7.	1 + 8=	2 + 5=	0 + 5=
8.	8 − 2=	1 + 9=	1 + 6=
9.	2 − 0=	5 + 5=	9 − 9=



"Mother, may I buy a baby doll and little bed that I saw in a store window?"

"How much will both cost, Peggy?"

"I don't know, Mother, but the doll is 32¢ and the bed is 24¢," Peggy said.

This is the way to find the answer:

Begin at the right and add the ones.

32¢
24¢
56¢

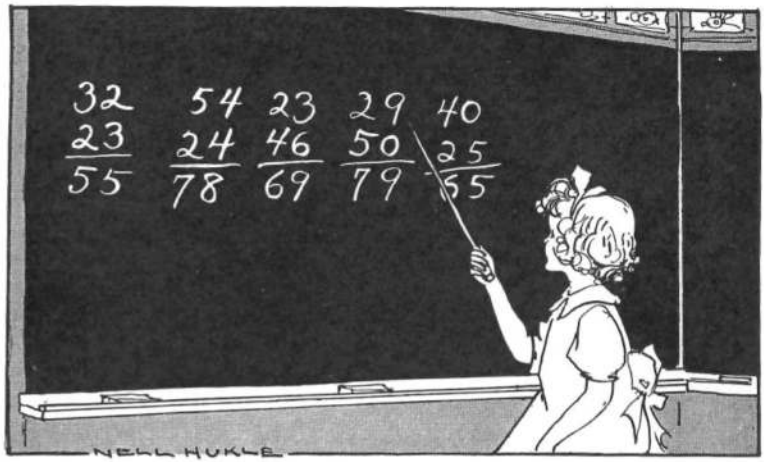
Think 2 and 4 are 6.

Write the 6 under the ones.

Then add the tens. 3 and 2 are 5.

Write 5 under tens as shown.

The answer is 56¢ for both.



See if you can explain how Miss Brown worked the examples on the blackboard.

Copy the examples below and add:

18	56	24	34	20	30	64
50	33	52	64	48	50	25

Are your answers correct?

Find out, or check, in this way:

Add up. Think: 6+2=8, 4+1=5.

The sum is 58, the same as before.

12
46
58

When the sum is the same whether you add up or down your work is probably correct.

Number Stories

1. Ray had 64 marbles, and he bought 23 more. How many marbles had Ray then?

2. A farmer took 70 bushels of potatoes to Fred's father in one load, and 25 bushels in another load. How many bushels did he take in both loads?

3. Carl's uncle had 10 cows in one field and 65 in another. How many cows did he have in both fields?

4. When Ellen went to feed her 10 lambs, she saw only 8 of them. How many lambs were missing?

5. Cousin Jack stayed at our house all of June and July. There are 30 days in June and 31 days in July. How many days did Jack stay?

6. Mr. Roy went away on business for 2 days. He traveled 64 miles the first day and 35 miles the second day. How many miles did Mr. Roy travel in two days?

7. What is the sum of 31 and 58?

To Find What You Know

Set 1. Add. Write the answers.

4	3	2	5	6	7	2	5
6	5	6	4	3	3	4	3
3	7	2	6	4	3	3	4
6	3	5	4	5	4	7	3

Set 2. Subtract. Write the answers.

6	9	6	2	3	5	8	9
2	7	5	1	2	3	4	3
8	9	9	6	8	9	7	4
7	5	8	6	5	4	7	0

Set 3. Notice the signs. Write answers.

7	2	6	8	7	5	9	8
−5	+8	−4	−6	−4	+5	+0	+2

Set 4. Add and check.

26	58	73	81	42	30	44	10
72	20	23	16	23	29	10	50

Mr. Ray was filling Tom's order for groceries. He gave Tom a pound package of crackers and a brick of butter marked, "Weight one pound."

Tom said, "That pound of butter is so much smaller than the pound of crackers!"

Tom lifted the pound of butter and the pound of crackers. He thought the butter was heavier. Then he weighed them on the scales. One was as heavy as the other.

Mr. Ray said, "Almost everything here is sold by the pound now — potatoes, flour, sugar, candy, green peas, apples, and sometimes even bananas, melons, and eggs."

How many pounds do you weigh?

In the back room of the store Tom asked, "Mr. Ray, what's in these big bags?"

"Sugar, one hundred pounds in each bag," Mr. Ray answered.

"Whew, sugar," Tom said. He counted, "One hundred, two hundred, three hundred, four hundred, five hundred, six hundred, seven hundred, eight hundred, nine hundred, ten hundred or one thousand pounds of sugar!"

100	200	300	400	500
600	700	800	900	1000

Write the numbers as you count by hundreds from 100 to 1000.

Other Large Numbers

1. Eva lives at 250 Main Street.
2. Carl rode 175 miles on the train.
3. In Bly school there are 408 children.
4. Read 250, two hundred fifty.
5. Read 175, one hundred seventy-five.
6. Read 408, four hundred eight.
7. Find page 130, page 147, page 108.

Write these numbers in figures:

8. Five hundred eighty
9. Eight hundred twenty-nine
10. Nine hundred sixty
11. Eight hundred
12. Three hundred fifty
13. Two hundred four
14. One hundred eight
15. Four hundred ten
16. Seven hundred thirty-six

Read these numbers:

17. 790, 493, 249, 648, 309, 501
18. 38, 161, 555, 87, 206, 898, 600

1. Jane has 39 pennies in her bank. How many pennies will be left after she takes out 12 to buy a doll?

Remember: To subtract, always write the larger number first. Under it write the smaller number.

Think:

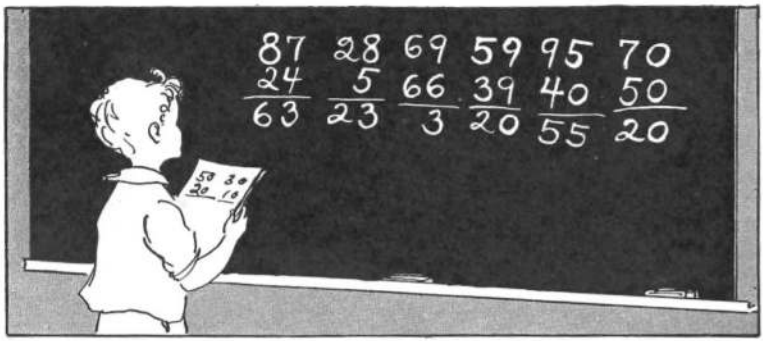
39
12
27

Two from 9; write 7 under ones.
One from 3; write 2 under tens.
Jane will have 27 pennies left.

2. If she takes out 6 more pennies for some cloth, how many will be left?

27
6
21

Think, 6 from 7 is 1.
There is nothing to take from 2.
Bring down the 2. 21 will be left.



See if you can tell how Miss Jackson got the answers on this blackboard.

Copy the examples below and subtract:

1.	96	79	50	86	84	99	78
	42	36	20	32	13	86	67
2.	45	89	27	38	56	68	69
	13	45	22	26	43	47	14

This is the way Miss Jackson showed her class how to check subtraction:

93
71
22

Beginning at the bottom to add, think 2 and 1 are 3. 2 and 7 are 9.

Add the answer and the smaller number; the sum should be the larger number.

Hippity hop to the bakery shop
To get a dozen cup cakes,
Six are light and six are dark—
Twelve is what a dozen makes.

1. Nan bought a dozen little cakes. The baker put just ____ cakes into her bag.
2. A dozen rolls is ____ rolls.
3. Twelve cookies make a ____ cookies.
4. There are ____ eggs in a dozen.
5. Twelve oranges make a _____.
6. How many roses are there in a dozen?

Twelve of anything make a dozen.

Number Stories

1. Nan bought 6 light cakes and 6 dark cakes. In all she bought ____ cakes.

2. Eight white cookies and four brown cookies are ____ cookies.

3. Nine boys were playing at Donald's house when 2 more came. That made ____ boys.

4. Tim had 6 white chickens and 5 yellow ones. In all he had ____ chickens.

5. Mrs. Clark bought 3 pounds of brown sugar and 8 pounds of white sugar. She bought ____ pounds of sugar altogether.

6. The baker said, "I sold 7 dozen chocolate cookies and 4 dozen white cookies this morning." How many dozen cookies did he sell?

Chart 8. Addition

2	3	6	9	7	8	5	8	6
9	8	6	2	4	3	6	4	5
11	11	12	11	11	11	11	12	11

Practice

Give the sums, then write them:

1.	2	7	6	8	8	6	3	9
	9	4	6	3	4	5	8	2
2.	1	8	2	3	6	9	6	7
	9	4	7	8	3	2	6	2
3.	6	3	6	8	5	7	8	7
	4	7	5	3	6	4	2	3
4.	6	3	5	2	5	6	8	4
	5	8	2	9	5	6	3	6

Copy, add, and check:

5.	51	10	83	75	13	51	13
	17	85	16	12	84	45	63

6.	7 + 4 =	3 + 8 =	8 + 4 =
7.	6 + 6 =	6 + 5 =	2 + 9 =
8.	9 + 2 =	8 + 3 =	5 + 6 =
9.	5 + 5 =	1 + 9 =	3 + 5 =
10.	7 + 1 =	7 + 4 =	7 + 3 =

When Jo's mother made a cake she let Jo bake a little one for herself.

Ann and Jean came to play and Jo served her cake. Counting Jo and her mother, how many were there to eat the cake?

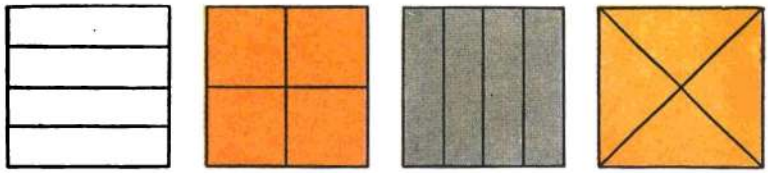
First, Jo cut the cake through the middle.

"That makes 2 pieces of the same size," Ann said, "but we need 4 pieces."

Then, Jo cut it through the middle again, across the other way.

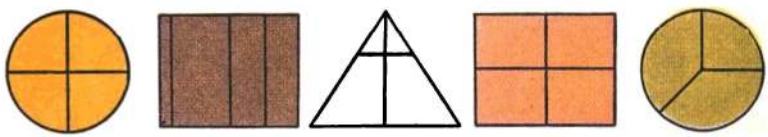
"Now there are 4 equal pieces," said Jean. "Just think! Each of us will have one-fourth or one quarter of a whole cake."

One-fourth is written $\frac{1}{4}$

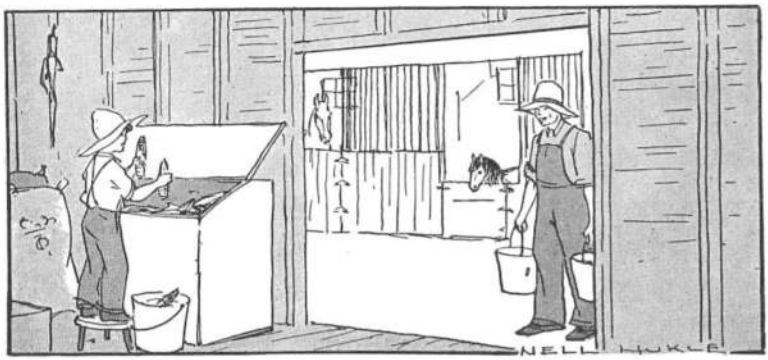


Here are four squares of the same size.
Each square is cut into ____ equal parts.
Each part is called____ ____of the whole square.

When a square is cut into fourths there are____equal pieces.



Which of these shapes show fourths?
Draw a small circle. Color $\frac{1}{2}$ of it red.
Draw a square. Color $\frac{1}{4}$ of it red.
Draw a triangle. Color $\frac{1}{2}$ of it blue.
Which would you rather have:
$\frac{1}{2}$ of a candy bar or $\frac{1}{4}$ of a candy bar?
A whole apple=__fourths, or__halves.



1. "Take 9 ears of corn to my saddle horse, Black Beauty, and 3 ears to your pony," Uncle Bill told James. How many ears of corn should James get altogether?

2. George had 7 calves to feed and then his uncle gave him 5 more. How many calves did he have to feed then?

3. Uncle Bill had 4 big pigs and 9 little ones. He had ____ pigs in all.

Chart 9. Addition

4	3	5	9	4	7	9	5	4
7	9	7	3	8	5	4	8	9
11	12	12	12	12	12	13	13	13

Practice

Give the sums, then write them:

1.	5	4	7	9	4	3	4	5
	7	9	5	4	7	9	8	8
2.	9	6	6	3	7	9	9	7
	3	5	6	8	5	2	4	5
3.	3	2	8	2	3	6	7	9
	7	5	2	7	4	3	4	1

Add and check:

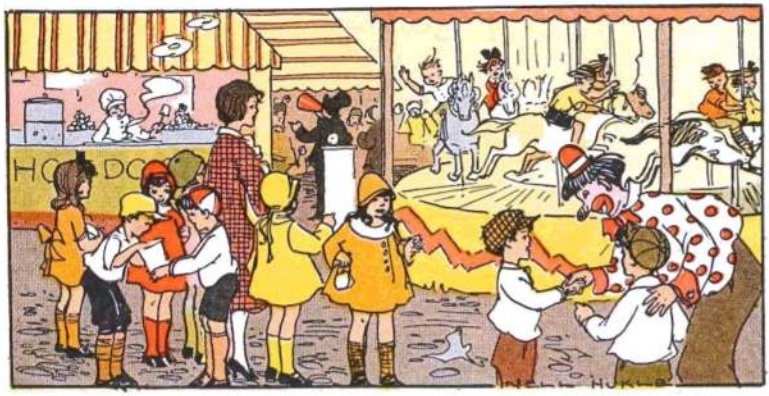
4.	42	86	27	33	52	87	19
	43	13	51	43	47	10	40

Subtract. Write only the answers:

5.	9	8	9	7	5	9	7	9
	6	4	5	3	5	3	2	0

Subtract and check:

6.	94	58	89	75	69	68	39
	63	23	26	13	54	26	25



1. Miss Tod took 15 children to the fair. While 6 were riding on the merry-go-round Sue counted 9 of them watching with Miss Tod. Was any child missing?

2. Jim and Ted are trying to get up a baseball game. They need 9 boys for a Blue team and 9 boys for a Red team. They need ____ boys for both teams.

Chart 10. Addition

6	7	9	8	7	9	6	9	8
9	7	6	8	6	8	7	9	6
15	14	15	16	13	17	13	18	14

Practice

1. Louis had 78 dollars in the bank. He spent 26 dollars of it for a bicycle. How much did he have left?

Write only the sums:

2.	8	6	9	7	9	8	7	9
	6	7	6	7	8	8	6	9
3.	6	4	5	8	7	5	4	9
	9	9	7	4	5	6	9	3

4. One morning Esther picked flowers from her grandmother's garden. She picked nine pink roses and eight yellow ones. That made a bouquet of ____ roses.

Number Stories

1. Bob said, "Clarence, I am 9 years old. How old are you?"

"I'm 5 years older than you are."

Clarence must be ____ years old.

2. Eight children sit in the first row and seven sit in the second row. They will need ____ places at the blackboard.

3. Seven boys and nine girls will each carry a flag in the second grade drill. How many flags will they need?

4. Eight cents and a nickel are ____¢.

5. Vi invited 7 girls and 8 boys to her party. In all she asked ____ children.

6. The sum of 8 and 9 is ____.

Chart 11. Addition

9	6	8	7	9	8	8	7	5
5	8	5	8	7	9	7	9	9
14	14	13	15	16	17	15	16	14

Practice

Say the sums, then write them:

	a	b	c	d	e	f	g	h
1.	7	8	6	9	9	8	5	8
	8	9	8	5	7	7	9	5
2.	5	8	3	7	5	4	7	9
	9	7	6	9	8	9	8	5
3.	9	8	7	6	5	6	8	4
	7	5	9	8	9	7	9	6
4.	7	8	5	7	8	9	7	8
	5	7	9	8	9	7	6	8

Write the sums and check:

	i	j	k	l	m	n
5.	42	64	21	85	21	43
	53	13	55	14	66	45

6. Viola wants to buy a swimming cap for 34¢ and a big ball for 22¢. Both of them together will cost ____ ¢.

A second grade class had a school garden. When the ground was ready for seeds, Miss Day asked, "How far apart shall we plant our rows?"

Tom said, "Father plants seed of this kind in rows one foot apart. That's just the length of our rulers."

Miss Day read from the seed envelope, "Plant in rows 12 inches apart."

"That's right," said Tom. "It's just what my father does. Twelve inches equal one foot."

12 inches = 1 foot

Using Inches and Feet

1. On the board draw a line that you think is 1 foot long. Is it too long?

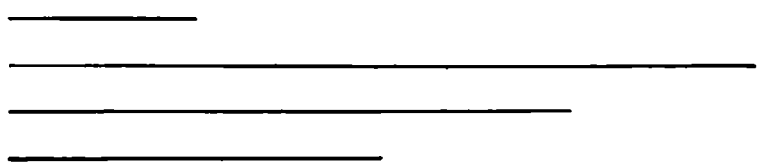
Check your line or answer each time by measuring with your ruler.

2. Try to draw a line 2 feet long.

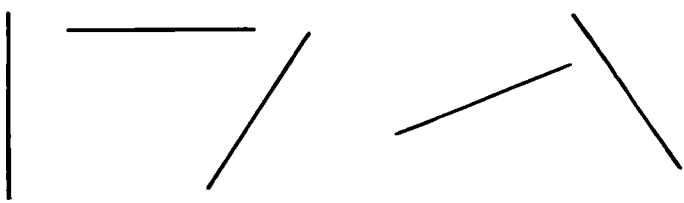
3. With your ruler draw a line 3 feet long. This line is one yard long.

3 feet = 1 yard

4. How long do you think these lines are:



5. Which line do you think is longest?



6. Measure your desk. How long is it? How wide is it? How high is it?

Number Stories

1. Cora's mother bought a dozen little cakes. The family ate 4 of them for lunch. How many were left?

2. Leo is 7 years old and his brother is 12. How much younger is Leo?

3. Don's father bought a dozen roses. Six of them were pink and the rest were white. ____ roses were white.

4. Will drew a line a foot long. He erased 5 inches. ____ inches were left.

5. Two are ____ fewer than 11.

6. Sixteen are ____ more than 8.

7. The difference between 6 and 11 is ____.

Chart 10. Subtraction

12	11	12	11	11	12	16	12	11
4	6	6	9	2	5	8	7	3
8	5	6	2	9	7	8	5	8

Practice

Subtract, then write the answers:

	a	b	c	d	e	f	g	h
1.	12	16	11	12	11	12	11	12
	5	8	3	7	6	6	2	7
2.	11	12	7	12	8	12	7	12
	9	4	5	6	5	5	2	7
3.	16	8	11	7	10	11	10	11
	8	3	3	2	8	2	3	9

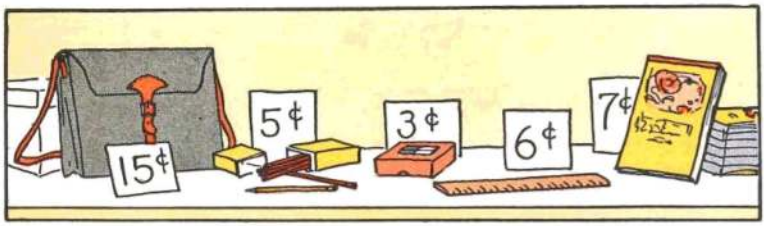
Watch the signs and give the answers:

4.	8	9	7	9	11	5	12	11
	+6	−2	+3	+8	−6	+9	−4	−9

5. How much more will a 45¢ doll cost than a 25¢ doll?

6. How much will a 40¢ cake and a 50¢ pie cost?

7. The Wild Cats' score in a football game was 27 and the Tigers' was 14. What was the difference between their scores?



1. Dick had 13¢ before he spent 5¢ for a pencil. Then he had ____ ¢ left.

2. A tablet costs ____ ¢ less than a bag.

3. Mary wanted to buy a ruler and a tablet. The cost of both is ____ ¢. She had only 8¢, so she needed ____ ¢ more.

4. Sam had 17¢. He bought a pencil and an eraser for ____ ¢. He had ____ ¢ left.

5. Five cents is ____ cents less than 14¢.

6. Fourteen cents is ____ more than 6¢.

7. The difference between seven and eleven is ____.

Chart 11. Subtraction

18	12	11	13	14	14	15	17	13
9	3	7	5	5	6	7	8	8
9	9	4	8	9	8	8	9	5

Practice

Subtract. Think the answers; write them:

1.	14	13	18	12	11	14	15	17
	5	5	9	3	7	6	7	8
2.	13	11	13	17	12	14	15	13
	8	3	5	8	5	5	7	5
3.	16	12	14	18	9	0	12	11
	8	5	6	9	3	0	3	7

Subtract, and check:

4.	68	97	88	46	90	75	89
	45	65	35	13	30	35	45

5. 8 from 13 = 7 from 15 =

6. 6 from 14 = 5 from 13 =

7. Miss Smith wanted 17 pupils for a jack-o'-lantern drill. After she had chosen 8 pupils, she needed _____ more.

A Week on the Farm

Uncle Gene asked Billy and Bobby to spend a week on his farm.

On Sunday, the first day, the boys had a bus ride to the farm. Monday they were up early to ride on the loads of hay. They drove the pony on Tuesday, and on Wednesday all went for a picnic at the lake.

Thursday the boys played in the haymow. That night Billy said, "Only Friday and Saturday left. A week, or seven days, is a short time on a farm."

1. What day is today? Tomorrow?
2. Yesterday was _____.
3. Day before yesterday was _____.
4. Day after tomorrow will be _____.
5. There are ____ days in a week. Name them.
6. There are ____school days in a week.
7. The first day of the week is _____.
8. The last day of the week is _____.

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1. This calendar is for what month? The names of the days of the week are written in a short way on this calendar.

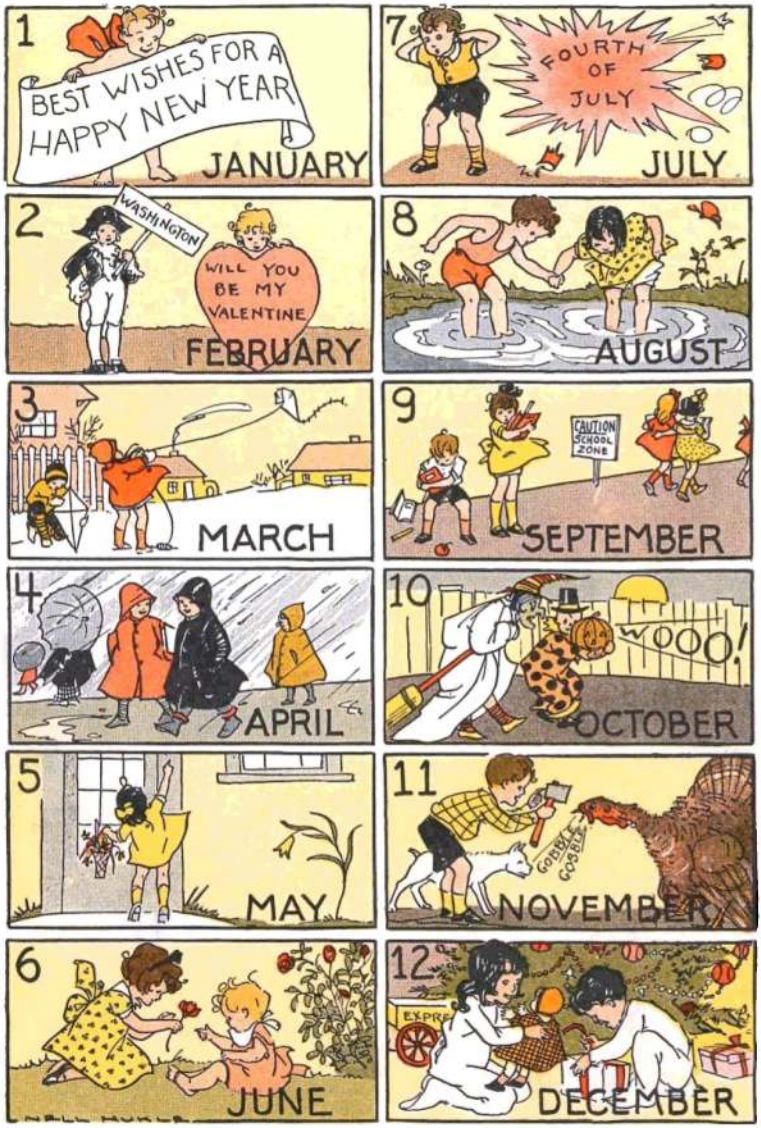
2. What does Sun. stand for? Mon.? Tues.? Wed.? Thurs.? Fri.? Sat.?

3. On this calendar, the first of March comes on what day?

4. March 19 is on _____.

5. March 25 is on _____.

6. The twenty-fourth of March is on ___.


1
BEST WISHES FOR A HAPPY NEW YEAR
JANUARY
2
WASHINGTON
WILL YOU BE MY VALENTINE
FEBRUARY
3
MARCH
4
APRIL
5
MAY
6
JUNE
7
FOURTH OF JULY
JULY
8
AUGUST
9
CAUTION SCHOOL ZONE
SEPTEMBER
10
WOOO!
OCTOBER
11
GOBBLE GOBBLE
NOVEMBER
12
EXPRESS
DECEMBER

Months and Seasons

1. In what month are you reading this?
2. In what month is your birthday?
3. Name the months of the year.
4. There are ___ months in a year.
5. The second month is _____.
6. In what month does your school begin?
7. What month comes after May?
8. What month comes before January?

The Months in Each Season			
1. Spring	2. Summer	3. Fall	4. Winter
March	June	September	December
April	July	October	January
May	August	November	February

9. In what season is December? June? November? March? February? May? July?

Number Stories

1. Ida is 11 years old and Martha is 8. How many years younger is Martha?

2. Herbert had 11 pennies before he bought an ice cream cone for 5 pennies. How many pennies did he still have?

3. At the cake shop, Alvin asked for a dozen cookies. Eight of them were dark and the rest were light. There were ____ light cookies.

4. The difference between six and thirteen is ____.

5. Seven and ____ make 14.

6. Eleven are ____ more than 4.

7. Nine are ____ fewer than 12.

8. Nine from 15 = ____. Seven from 13 = ____.

Chart 12. Subtraction

11	14	11	12	12	13	15	13	11
5	7	4	8	9	6	9	7	8
6	7	7	4	3	7	6	6	3

Practice

Subtract. Give the answers, then write them:

	a	b	c	d	e	f	g	h
1.	11	13	15	13	12	11	12	14
	8	7	9	6	9	4	8	7
2.	11	18	12	12	13	11	15	13
	5	9	8	3	6	7	9	5
3.	14	13	14	11	15	12	17	11
	5	7	6	8	7	9	8	4

Watch the signs, and write the answers:

4.	13	9	6	17	14	6	0	15
	−8	+8	+9	−8	−5	+8	+9	−9

5. Which is the larger score, 87 or 35? How much larger is it?

6. Jim had 87¢ before he left for the circus. When he returned home he had 34¢. He must have spent ____¢.

7. Dorothy earned 27¢ last week and 42¢ this week. She earned ____¢ in the two weeks.

"Mother, is it time to go to the party?"

"Where are the hands of the clock, Sue?"

"The short hand is at one," said Sue.

"Yes, but I must know where the long hand is, too," her mother said.

"The long hand is at twelve, Mother."

"Then it is just 1 o'clock and you will not go for an hour or 60 minutes.

"While the long minute hand is moving around the clock face once to get back to 12, the short hour hand will move only from 1 to 2. When the short hand is at 2 and the long hand is at 12, the time will be 2 o'clock, time to go to the party."

What time does each clock show?

When Sue had been at the party some time, she said to Anne's mother, "Will you please tell me when it is half past four? I must go home then."

"When the long hand is at 6 and the short hand is half way between 4 and 5, it will be half past 4," Anne's mother told Sue.

What time does each of these clocks show?

Telling Time

This is the clock that
Tells Jack the time.
It strikes every hour
And he hears its chime.

At _____ o'clock
He hears mother say,
"It's time to get up now
To start a new day."

At ___ _____ ___
With breakfast done,
Jack goes to school
For work and for fun.

Then all through the morning
Till ___ o'clock, noon,
He reads, adds, and paints
And sings a fine tune.

And then for an hour
From twelve until ____
When he's eaten his lunch,
He plays in the sun.

After his playtime
He works until ____.
From then until dinner,
He's happy and free.

At ____o'clock sharp
Jack is called in to eat.
He's hungry, of course,
And food is a treat.

Then he plays for awhile
Till the hands point to____,
And he hears Father say,
"Off to bed, Jack, it's late!"

Sue's mother picked out two clocks and asked, "Which shall we buy?"

"I can't tell time by the clock that hasn't numbers on it," Sue said.

"This clock has the same numbers made another way. See, here they are."

I	II	III	IIII or IV	V	VI
1	2	3	4	5	6

VII	VIII	IX	X	XI	XII
7	8	9	10	11	12

What time does each clock below show?

Can You Work These?

1. Mrs. Bow took a plate of 15 cookies to some boys playing near her house. Each boy took one cookie and then there were 8 cookies left on the plate. Was there another cookie for each boy?

2. Ames is 15 miles from where Bob and Gordon live. On their way to Ames, the boys saw a sign, "6 miles to Ames." How far were they from home?

3. During recess Harry counted 14 cars that went east and 8 cars that went west. ____ more cars went east than west.

4. Will is 13 years old and John is 9. How old was Will when John was born?

Chart 13. Subtraction

17	14	16	13	16	14	13	15	15
9	9	7	9	9	8	4	8	6
8	5	9	4	7	6	9	7	9

Practice

Subtract. Give the answers; write them:

	a	b	c	d	e	f	g	h
1.	17	15	14	13	13	16	15	16
	9	6	9	9	4	9	8	7
2.	14	13	12	17	15	11	11	11
	8	7	5	8	9	4	5	8
3.	13	12	11	13	14	11	12	15
	6	8	8	5	7	7	9	7

4. Jane had 15 little chicks. Chicken hawks took 8. Only ____ chicks were left.

5. Fay bounced a ball 7 times, but Agnes bounced it 13 times. She bounced it ____ times more than Fay.

6. Jack held his breath while he took 12 steps. Then Dan tried. When he had taken 8 steps, he thought, "I need ____ more steps to equal Jack's number."

7. Nine cents are ____ fewer than 15¢.

Practice

Subtract. Write only the answers:

	a	b	c	d	e	f	g	h
1.	11	11	9	14	11	12	16	13
	2	7	3	6	4	5	7	9
2.	15	12	16	15	11	18	14	15
	9	3	7	6	9	9	5	8
3.	14	10	16	11	16	11	13	13
	8	4	8	8	9	6	6	7
4.	14	13	13	7	15	8	15	12
	9	8	5	3	6	3	7	9
5.	13	11	17	13	8	12	12	14
	6	3	9	4	2	8	7	8

Add. Write only the answers:

6.	9	8	6	7	7	9	4	8
	4	5	7	8	6	6	6	9
7.	9	5	9	8	6	7	4	5
	8	8	5	7	8	9	8	7

United States Money

Point to the largest of these silver coins. What is its name? Name each coin. What numbers have been left out?

Quarter, 25¢

= ____ nickels.
= 1 dime and ____ nickels.
= 1 nickel and ____ dimes.

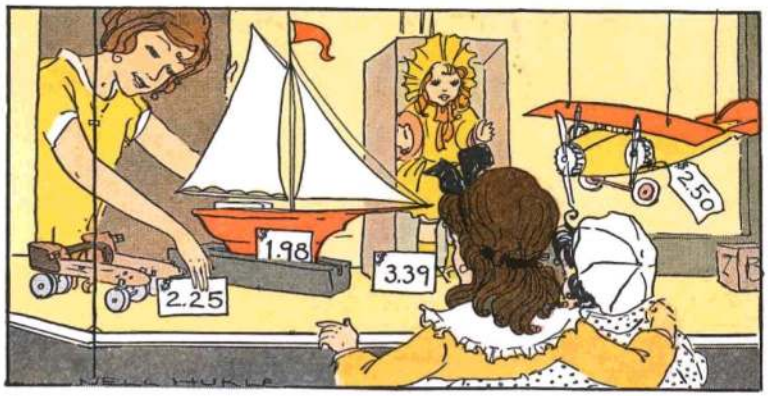
Half Dollar, 50¢

= ____ quarters.
= ____ dimes.
= ____ nickels.
= 1 quarter and ____ nickels.

Dollar, 100¢

= ____ half dollars.
= ____ quarters.
= ____ dimes.
= ____ nickels.
= 1 half dollar and ____ quarters.

We also have paper dollars. Ask somebody to show you a paper dollar.



$2.25 $1.98 $3.39 $2.50

$ and $ These are called dollar signs.

The doll costs 3 dollars and 39 cents.

The price of the roller skates in the picture is 2 dollars and 25 cents.

What does the airplane cost?

The sailboat costs ____.

Read these prices:

$75 $2.25 $5.00 $.75 $.05

$14
12
$26

John's suit cost $14 and his coat cost $12. Both cost $____.

Be sure to show that your answer is dollars.

Adding and Subtracting Money

Ted bought a $.70 toy for his brother and a $.50 toy for his cousin. "To find out how much I must pay for both, I must add," Ted thought.

$ .50
.70
$1.20

0 and 0 = 0. Write 0 under one's place.

5 and 7 = 12. Write the 2 under ten's and the 1 to the left in hundred's place.

Ted was careful to show dollars and cents in his answer.

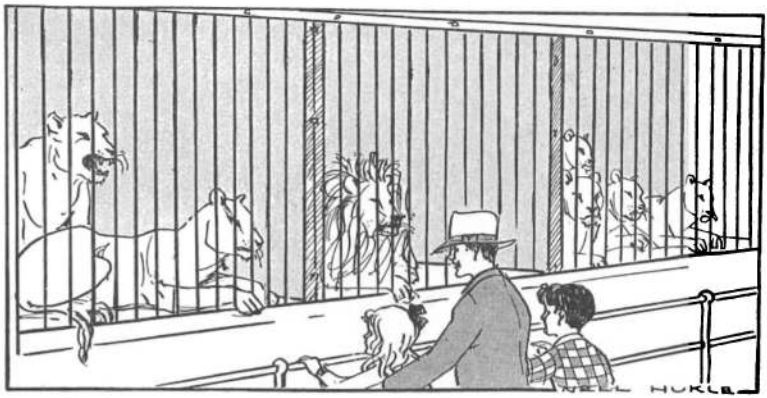
Add and check your answers:

$53	$ 83	$96	$72	$.25	$94	$.76
44	93	72	82	.63	92	.73
$97	$176					

$.44	$.52	$.70	$.71	$.61	$.80	$.52
.84	.97	.70	.98	.65	.75	.86

Subtract and check your answers:

$96	$.94	$99	$.75	$.88	$94	$99
55	.80	67	.54	.74	42	82
$41	$.14					



Mr. Moore took John and Joan to the zoo. There they saw many kinds of animals from different parts of the world.

1. There were 2 lions in one cage, 1 in another, and 4 in another. How many lions were in the three cages?

To find the answer by adding, write the numbers this way:

Think: 2 and 1 are 3, and 4 are 7.

Say only the sum, 7.

$$\begin{array}{r} 2 \\ 1 \\ 4 \\ \hline 7 \end{array}$$

2. In a large cage three monkeys were climbing, another was scratching its head, and the other five were sleeping. How many monkeys were in the cage?

Practice

Write only the sums:

	a	b	c	d	e	f	g	h
1.	2	1	3	3	3	3	1	2
	1	2	1	0	3	1	1	3
	0	3	2	1	3	0	1	2
2.	4	3	1	2	4	4	3	4
	3	5	5	2	1	2	4	0
	2	1	2	5	2	3	2	3
3.	3	5	2	5	5	6	3	4
	6	2	6	3	3	1	2	5
	2	4	3	3	8	7	6	6
4.	1	2	1	5	3	4	6	6
	3	5	4	3	3	4	1	3
	9	9	8	7	8	9	6	7

Write these numbers neatly on your paper and add:

5. 2, 5, 9 1, 4, 8 2, 7, 7

6. 2, 6, 5 1, 3, 9 5, 1, 8

7. What is the sum of 5¢, 4¢, and 8¢?

8. 5 feet + 1 foot + 8 feet = ____ feet.

To Find What You Know

Try to give all of these sums in 2 minutes:

0	5	0	4	3	8	4	7	3	6
3	1	2	4	2	2	5	3	5	8
1	7	8	1	5	2	9	4	7	4
1	1	1	3	2	7	9	7	6	9
8	8	3	6	2	7	1	9	7	1
5	6	9	2	5	2	2	1	0	0
9	2	7	4	1	1	6	8	6	3
0	1	8	8	9	7	4	4	6	8
1	2	0	9	5	9	4	9	1	9
8	0	6	7	6	4	2	3	4	2
7	3	8	1	8	0	6	0	3	2
7	4	0	5	9	1	7	5	7	8
0	4	5	6	7	5	0	1	7	2
0	0	8	1	4	7	4	6	5	6
2	0	5	8	4	5	9	4	6	8
4	7	5	7	6	0	6	1	5	8

To Find What You Know

1. Now try to give all of these sums in half a minute:

6	2	3	0	3	0	2	3	2	5
0	2	3	9	0	8	3	1	9	4

4	6	8	7	6	9	5	3	9	5
3	9	3	9	3	8	3	6	5	9

2. Add. Write only the sums:

63	52	$36	44	$22	$.52	$.89
35	36	42	53	57	.44	.10

54	$74	87	$55	80	$.98	$.30
90	92	72	82	92	.70	.90

3. Copy these columns, and add:

1	2	0	5	2	0	2	6	1
3	2	7	0	1	3	0	1	7
1	5	1	0	3	1	3	0	1

10	13	71	20	30	34	25
40	56	10	65	32	25	41
10	10	18	10	35	20	23

A Matching Game

Under letter B, find and read the answer to each question under letter A:

A	B
1. Twelve things = ?	Three sides
2. A dime = ?	A pint
3. A triangle has?	12 inches
4. Two halves = ?	A year
5. 7 days = ?	A dozen
6. $\frac{1}{2}$ quart = ?	A quart
7. A dollar = ?	2 nickels
8. A foot = ?	Four quarters
9. 12 months = ?	A whole
10. 2 pints = ?	A week

Try to Finish These

1. There are____feet in a yard.
2. A week is ____ days.
3. A whole melon has ____ fourths.
4. A square has ____ equal sides.
5. A wheel is shaped like a _____.
6. A quarter dollar equals ____ nickels.

To Find What You Know

Try to give the answers to all of these subtraction examples in 2 minutes:

0	4	3	6	4	10	9	9	11	14
0	0	1	3	2	6	7	3	7	6
1	9	4	8	14	9	11	12	9	13
0	0	1	7	7	2	4	5	5	9
6	4	2	11	4	10	10	16	11	16
0	4	0	5	3	3	4	8	8	9
5	8	9	15	9	8	12	8	10	7
0	8	1	7	8	3	6	5	7	3
3	10	17	9	7	2	12	11	12	10
3	1	8	6	6	1	7	6	8	8
5	1	5	9	13	8	6	12	6	14
4	1	5	4	5	2	1	9	5	8
3	8	13	17	11	9	7	2	11	7
2	6	4	9	3	9	4	2	9	7
7	10	7	13	14	7	6	13	5	13
1	2	5	7	9	0	6	8	1	6

To Find What You Know

1. Now try to give the answers to these subtraction examples in half a minute:

15	14	18	7	6	15	16	12	15	11
8	5	9	2	4	6	7	3	9	2
3	5	12	8	5	8	10	8	10	5
0	1	4	4	3	0	5	1	9	2

2. Subtract. Write only the answers:

98	95	$89	90	$79	76	$.69
63	55	53	80	37	54	.30
99	$58	65	$.44	86	$63	77
24	26	53	.32	42	2	24
92	92	80	99	78	92	88
62	81	70	96	3	50	28

3. Clara weighs 45 pounds and Nan 58 pounds. What is the difference between their weights?

4. There are 11 words that Fred has missed in spelling lessons. Yesterday he spelled 8 of them correctly. He must study ____ of them again.

What Numbers Were Left Out?

1. 2, 4, 6, ___, 10, 12, ___, 16, ___, ___.
2. 187, 188, 189, ____, ____, ____, 193.
3. 30, 40, 50, ___, ___, 80, ___, ___, ___.
4. 85, 90, 95, ___, 105, ___, 115, ___.
5. 400, 500, 600, ____, ____, ____, 1000.

Fill the Blanks with "Add" or "Subtract"

6. To find "How many are left?" I should ____.
7. If I am asked the question, "How many altogether?" I must ___ to find out.
8. "What is the sum?" tells me to ___.
9. When I find the difference between two numbers, I ____.
10. To find the total score I must ____.
11. To find "How many more are needed?" I should ____ the smaller number from the larger number.
12. To find "How many less?" I ____.
13. To find "How many fewer?" I should ___.

Review Questions

Would you ask for pounds, quarts, pints, dozens, or yards if you were buying:

ice cream?	cookies?	bananas?
cloth?	milk?	sugar?
butter?	oranges?	beefsteak?

Which Is More?

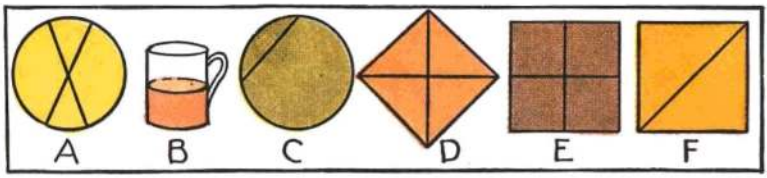
Number the answers as you write them:

1. A yard or a foot?
2. A pint or a quart?
3. A week or a month?
4. A half or a fourth?
5. Two dimes or a quarter?
6. A foot or 14 inches?

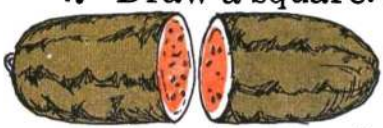
Which Is Less?

7. One quart or three pints?
8. Ten days or a week?
9. Ten or a dozen?
10. A year or six months?
11. Five nickels or a half dollar?

To Find What You Know

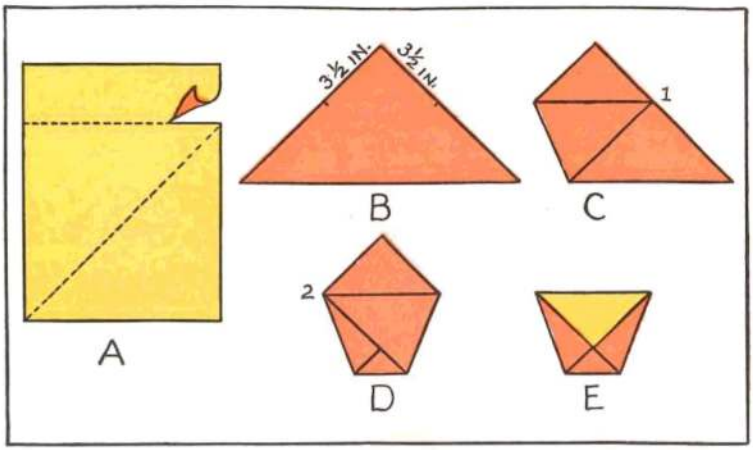


1. Which of these pictures show halves?
2. Which show fourths?
3. Draw a circle. Mark it into halves.
4. Draw a square. Mark it into quarters.



5. Each part is one _____ of the melon.
6. A cake cut into fourths, has ____ equal parts.
7. $1 = \frac{?}{2}$. $\frac{4}{4} = ____$. $\frac{2}{4} = \frac{?}{2}$.
8. If you cut anything into four equal parts, each part will be ____ ____.
9. If you cut anything into two equal parts, each part will be ____ ____.
10. One-half quart is a ____.
11. A nickel buys $\frac{1}{2}$ as much as a ____.
12. A quarter buys ____ as much as 50¢.

Making a Paper Cup



Get a piece of clean paper that is $8\frac{1}{2}$ (eight and one-half) inches wide. Cut a square from it, as shown in picture A.

What shape is the folded square in B?

Lay it on your desk as shown in B.

From the upper corner, measure along each edge $3\frac{1}{2}$ inches. Put dots as in B.

Fold the left point over to dot 1.

Fold the right point to the other dot.

Fold down the upper corners, one to one side of the cup and one to the other.

How To Make Change

Andy helps his brother sell magazines at 5¢ each, and papers at 3¢ each.

1. Joe gave Andy 10¢ for 1 magazine. His change was ____¢.

2. A girl gave Andy a dime and asked for a paper. He gave her the paper and change of ____ cents as he said, "5 cents," and ____ nickel as he said, "10 cents."

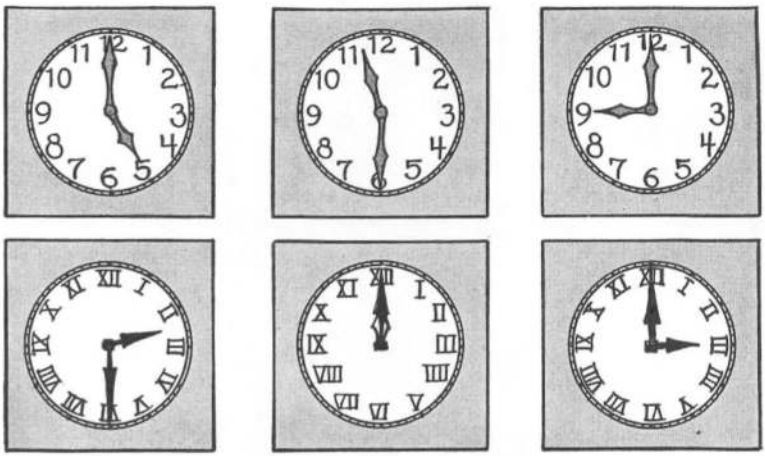
3. A man took a magazine and gave Andy a quarter. Andy remembered that a quarter is equal to 25 cents. He said, "The magazine is 5 cents." Then as he handed the man a nickel at a time, Andy said, "Ten, fifteen, twenty, twenty-five." How many nickels did Andy give the man?

4. In what other ways could Andy have made change for that man?

5. Mr. Fay gave Andy a quarter and asked for a magazine and a paper. Play you are Andy and show what he may have done and said.

To Find What You Know

1. What time does each clock face show?



2. Noon is at ____ o'clock.
3. Name the days of the week.
4. The day before Sunday is _____.
5. The fifth month is _____.
6. The month before May is _____.
7. After September comes _____.
8. The four seasons are _____ _____ _____ _____.
9. The summer months are _____ _____ _____.

Each morning at we drink our milk.

Jane said, "These are half-pint bottles. Each one holds just a glassful. I measured some of them at home."

Measure to see how many half-pints there are in a pint. In a quart.

Tom wants to drink a quart of milk, or ____ glassfuls each day.

In a quart of milk there are ____ pints, or ____ half-pints.

A pint of milk weighs about a pound.

Our assembly began at sharp.

At we went back to our rooms.

Our second grade class invited 32 first grade and 45 third grade children, or ____ children in all.

Our play was "Hansel and Gretel." The actors were a mother, father, two children, and a witch. ____ children were needed to take these parts.

Fourteen gingerbread girls and 15 gingerbread boys gave a dance. There were ____ children in the dance.

To Find What You Know

1. Joe rode on the train from 7 o'clock in the morning until noon. "I was on the train for ____ hours," he said.

2. At a picnic 25 of the 38 children went in swimming. All of the others, or ____ children, played games.

3. Flora is making curtains for her doll's house. She needs 13 inches of cloth for one window, 24 inches for one, and 10 inches for another. In all she needs ____ inches of cloth.

4. A half dollar is ____ ¢ less than $.75.

5. A 5¢ ice cream cone, a 3¢ toy, and a 5¢ candy bar cost ____ ¢ altogether.

6. A dozen cookies are ____ more than 9.

7. Father paid $.84 for his ticket and $.42 for my ticket. Both cost $ ____.

8. Frances has $24 to buy a bicycle which costs $29. She needs $ ____ more.

9. The difference between 30 and 50 is ____.

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